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ABSTRACT

Innovation in elementary education was the focus of a 5-year project of the 24 member States of the Council for Cultural Co-operation of the Council of Europe. Concerning 5-through-6-year-olds and 11-through-12-year-olds and representing the first sustained effort undertaken by the Council of Europe in the field of elementary education, the project began in 1983 and continued until 1987. To give the project a practical dimension, a network of 12 contact schools was established that provided liaison between elementary schools engaged in innovation. Chapter 1 of this final report discusses internal and external pressures currently exerted on educational systems, including economic and social factors and new knowledge about child development. Chapter 2 considers how education systems in general have reacted to these pressures, what solutions have been found, what problems remain, and where systemic malfunctioning can still be observed. Chapter 3 explores factors entering into innovation, styles of innovation recorded by the project, and factors favorable to and obstacles to the implementation of innovation. Chapter 4 puts forth conclusions and several recommendations concerning the objectives and organization of primary education, conditions surrounding innovation, curricula, the implications of the innovation process for participants, and project follow-up. Appendices provide a general description of the context of the project and it working methods, a discussion of school improvement, case studies on innovations, an exploratory analysis of the process of innovation, the project's main curriculum-related conclusions, and a summary of workshops on research and assessment. (RH)

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Project No. 8 of the CDCC

"Innovation in primary education"

Final report

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Strasbourg 1988

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"INNOVATION IN PRIMARY EDUCATION"

FINAL REPORT

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FOREWORD

This report is the outcome of the work carried out by Project Group No 8 at the request of the Council for Cultural Co-operation (CDCC). The group - comprising 30 or so education experts representing all the Council of Europe member States - met from 1982 to 1987. The subject of its work was innovation in primary education. While also considering the nature and significance of innovation, the group was mainly concerned with the role that innovation should play in adapting education systems more fully to society's expectations and the requirements of child development.

Like other Council of Europe reports by project groups similar in structure and functioning to Project Group No 8, this report sets out not only to summarise current thinking and research on the subject, but to place them in a dynamic context by means of conclusions and recommendations which make up Chapter 4 (1).

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The report draws on a large number of sources of information, particularly the following three (see the appendices for details):

- symposia, conferences, research workshops and other meetings on innovation in general or specific aspects thereof, attended by members of the group, other senior education officials, academics and practitioners;
- case studies of innovations carried out in member States as part of the normal functioning of their education systems;
- a network of twelve contact schools, providing liaison between schools engaged in similar kinds of innovation; by this means some of the people directly concerned (teachers and parents) were able to take an active part in the project.

The report is primarily aimed at education officials in the various member States, though, of course, it is also intended for teachers, parents and, more generally, anyone interested in education. This choice of target readership didacted its form, structure and style: the report offers three levels of information, corresponding to three degrees of condensation (and three reading times), viz the summary (pp -), the report proper (pp -) and the appendices (I-VI). It might also be considered that there is a fourth level consisting of the sum of individual reports relating to the Project Group's activities. (These reports are listed in Appendix VI).

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(1) As these recommendations are not by any means addressed solely to governments, they may help to initiate a general debate in member States.

The three parts of the report do not have quite the same status, however. The report paper and the summary are not the work of the Project Group as a whole (1). As such, they reflect a consensus on every important point and on the various options presented - even though, on account of the diversity of European education systems, there may be the odd inconsistency with the actual situation in this or that member State.

The appendices were compiled by experts, not all of whom were members of the project group (though they were all closely involved in its work). Being appendices, they should not be regarded as necessarily reflecting a consensus but rather as an expression of their authors' views.

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Lastly, the shape and order of the report's four chapters are naturally the result of a deliberate decision to focus attention mainly on the dynamic aspects of innovation. In the course of our work we came to see innovation as closely bound up with the various pressures that are being exerted on education systems. It was therefore logical to begin by considering some of those pressures - both external ones, brought about by social change, and internal ones, arising from the resolution in our knowledge of children's psychological development and the process of acquiring knowledge. This is the subject of Chapter 1.

Chapter 2 considers how education systems in general have reacted to these pressures, what solutions have already been found, what problems remain and where malfunctionings are still to be observed. Chapter 3 deals with the above-mentioned dynamic aspects of innovation, both as an answer to the malfunctionings observed and as a tool for making the necessary adjustments.

The last chapter puts forward a number of conclusions and proposals, in the hope that they will stimulate further discussions and provide a framework for them.

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(1) The editing was put into the capable hands of a smaller drafting group.

SUMMARY

One of the features of the latter part of this century and one of which everyone is aware, is the obvious imbalance between society and schools.

Schools have two roles: on the one hand, they are an agent of change and social mobility and, at the same time, they act as a repository of the "sound roots of culture" and are responsible for handing down the heritage. This dual role does not make it easy for school systems to react and adapt quickly to a spate of rapid changes, whatever their cause.

1. Schools are the subject of two main types of pressure (which are not necessarily consistent). Some stem from swift social upheavals, others from changes within educational systems themselves.

1.1. The social pressures come from outside the school; their effects are complex and vary in scale. No matter whether they take the form of major underlying tendencies like population trends (natural fluctuations and/or migration) and the economic crisis, or are more subtle like the spread of new information and communication technologies and changes in the function of the family, these alterations call schools into question and often give rise to a sense of anxiety.

1.2. Some of the strongest and most valuable pressures within educational systems themselves derive from our greater understanding of processes whereby a child develops and acquires knowledge. The time has come to put academic disputes or conflicts between disciplines behind us.

The three vital links between these processes are the mechanisms for the child's interaction with the whole of its environment, recognition and strengthening of the independence a pupil needs when building up his own stock of knowledge (and assimilating school and social rules) and assessment designed and experienced as a formative tool and a guide to proficiency. They also face schools with hard questions about the basis of their action and daily practices.

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2. Schools have already started to look for replies to these different urgent questions. Their approach has been somewhat piecemeal and has not always seemed very coherent, but it has been tremendously enriched by their human potential.

The replies may be grouped under a few main headings:

- Democratisation of education and successful teaching for all are gradually coming to be regarded everywhere as the basic aims of the various school systems;

- Success will be achieved by trying to ensure continuity in the child's education and through differentiation of teaching approaches;

- All this depends on a planned approach resting on a new definition of schools as organisations which are educational communities, where each of the members has specific responsibilities and a role to play.

- The teacher, who is at the centre of these changes, which are defined in terms of aims, educational and teaching methods or organisation, finds that his role has been reshaped and redefined. Although he has a vital part to play in innovation, he is not alone in this process which requires wholehearted teamwork.

3. Innovation is clearly the means for seeking a new balance between society and schools. It is a means and pari passu a tool for the necessary adjustment.

3.1.1. In Project No 8, the term "innovation" includes major policy initiatives as well as local modifications of existing practice. The aim is to change the processes rather than the products of the school system and it is obvious that no single type of innovation exists which is always apposite everywhere. One of the basic principles is that school authorities learn to function in a "mixed system which combines distributive local initiatives with centralism in relation to some key principles".

3.1.2. Clearly all the authorities concerned must be committed to innovation. The project has defined five essential parties to it:

- the central authority including those responsible for political choices and measures to implement them;
- those responsible for local educational policy and administration;
- those responsible for the management of schools (head teachers and advisers);
- teachers;
- parents.

The degree of involvement of any particular group will depend on the nature of the innovation, but all are concerned. At all events, the commitment of the school and the teachers is indispensable, for it is at this level that all changes have to be implemented.

The work conducted during the project by the contact schools shows these schools' preference for an innovative process emphasising "interaction" (especially exchanges of views between teachers which must be facilitated by the principal's style of leadership). In order to provide the conditions needed for this vital teamwork, the school must have a good leadership structure in which success is recognised and rewarded, where there are clear agreements concerning teachers' individual freedom of action and the limits to it and where channels of communication are kept open. The role of the school principal is mainly one of co-ordinating and stimulating individual and group efforts, ensuring that the other parties are kept informed and providing logistic support for innovation.

3.1.3. The relationships between research, teachers and innovation are extremely complex. Researchers are usually called in at two stages: the initiators of innovation may turn to an "educational expert" whose scientific advice can help knowledge move from the stage of basic research to that of practical application; alternatively, a researcher may be asked to analyse how an innovation is working (or not working) and to guide policy decisions.

These two levels are ambiguous and rarely give satisfaction. The project's findings show that research may pay more attention to the client group (teachers, administrators) by seeking their help in analysing the situation, formulating the research problem and developing research designs flexible enough to be altered as a result of the client's interests and influence. Several schools have opted for an "action research" approach, where the school itself defines the problem and asks a researcher to act as a consultant.

This approach has several advantages, as the teaching team involved does all it can to ensure that the innovation is successful. Some dangers must nevertheless be pointed out, the first being the risk that the school might become inward-looking and resistant to any other form of change.

3.2. From careful examination of the case studies submitted by the member countries, visits to and reports from the contact schools, it has been possible to identify five main styles of innovation implemented in the project.

In the course development approach, teachers attend courses organised by local authorities, where the aims and methods of the innovation wanted by these authorities are explained to them. When these teachers go back to their school they are supposed to become "change agents" and persuade their colleagues. A modification of this style is the training team approach which involves more commitment on the part of the teachers because they are asked to help to plan in-service programmes, run them and possibly provide subsequent advice and training. These two styles of innovation are found above all when innovation has been pre-determined and its aims clearly defined.

The school-based approach enables a school to implement changes in response to problems which the staff as a whole (and other members of educational community) have identified. This process which involves a high level of commitment among the staff of a school is very slow and not suitable for large-scale projects. A variation of this method is the consultancy approach, where an outside expert helps schools to clarify issues and arrive at solutions. The consultant, who is often an expert in evaluation procedures, provides valuable assistance in this field. Unlike the two previous approaches, these two styles are generally based on a problem-solving approach and the school plays a more active role.

Halfway between these two, the cluster approach enables a group of schools to work together to solve common problems. Schools continue to adapt the innovation programme to meet their particular needs, but also come together to share experiences and support each other and possibly, to share the resources connected with innovation.

The cascade approach was absent from the project, although it is widespread in many member States. It consists in training a number of teachers who train others, etc. This network provides groups of consultants who can act as links between different schools and identify common features.

3.3. All those who took part in the project have tried to pinpoint the factors which aided or hampered innovation.

3.3.1. It is clear that the successful implementation of an innovation is closely bound with adequate resources (money, time and material). But other factors generally make for change. The following order of priority has been established:

- administrative, support to help staff to deal with official procedures and provide resources;
- adequate resources, chiefly additional finance to buy books, documentation, material, etc.;
- time for teachers to agree on work to be carried out together and on the practical arrangements for this work;
- support for parents, which means supplying them with plenty of information;
- additional help for pupils with learning difficulties;
- possible use of professional trainers/specialist research consultants.

It is obvious that external support is needed as well as resources.

3.3.2. One of the main obstacles to innovation is resistance to change among those who are responsible for implementation within the classroom. But, once again, other factors can be identified:

- lack of time to reflect about innovation; (analysing a situation and working out tactics requires a great deal of time);
- lack of adequate resources and administrative support;
- lack of shared decision-making structures; on the one hand, teachers resisted innovation when they were "ordered" to change while, on the other, all felt the need for teamwork;
- inability of those (generally head teachers) responsible for external relations (parents and local authorities) to do this job properly;
- stress in teaching, especially lack of knowledge;
- failure of those responsible for educational policy to take account of schools' special circumstances.

It is striking to note that issues such as conflict commitment and co-operation form a leitmotiv in these analyses. Seminars held as part of the project on the role of the teacher and headteacher have gone a long way to corroborating their findings.

3.4. There is no wholly consistent approach to teacher training as far as innovation is concerned, far from it.

It seems necessary to review the form and organisation of initial teacher training, which still relies too heavily on an older teacher passing on (during teaching practice) "tips" and practices which are often already out of date. The "IT-INSET" training programmes in Great Britain which try to combine initial training for student teachers and in-service training for experienced ones with the assistance of a college tutor who makes it easier to analyse the situation and teaching methods, seems to be very promising.

Similarly, in-service training ought primarily to enable others to develop their evaluative skills to analyse the situation correctly and monitor the effects of change, as many teachers excel in a craft knowledge of teaching without knowing why it produces good results. The aim of all training must be to increase the understanding of teachers, so that this craft knowledge becomes reflective knowledge whereby teachers can explain clearly the theory behind the practices they adopt.

The training of head teachers requires much care. There are many school principals who still have an exclusively or mainly functional approach to their profession in that they ignore the crucial question of human relationships. They must receive training in this field (perhaps through a cascade approach from those of their colleagues who have been successful).

Moreover, headteachers must be sure that they have the support of their authorities when they promote an innovation programme which is likely to run into opposition from the most conservative and cautious parents and teachers.

4. The members of the project group make a number of recommendations at the end of their deliberations. They concern:

- the objectives of primary education;
- the conditions surrounding innovation;
- the organisation of primary education;
- curricula.

They also consider a number of urgent measures relating to the involvement of the various participants in the educational processes:

- teachers;
- school principals and authorities responsible for assistance and support;
- parents;
- educational research;
- teacher training.

They then consider what action ought to be taken on the findings of Project No 8 to ensure that they are widely disseminated and that some themes (curricula, new technologies, cognitive process, etc.) are studied in greater depth.

INTRODUCTION

It is a truism to state that between a society and its schools there are extremely strong links. To give but one - though not the least significant - example: it is well known how important a part the democratic principle of equality between all individuals has played in the emergence and promotion of the idea of an equal right to education. Conversely, access to school education (and hence the introduction of compulsory schooling) is indeed the first step towards implementing the democratic principle of equality of opportunity and the development of everyone's potential.

And so should a school be a "reflection", a "mirror" or an "agent of change"? These questions, repeatedly discussed among specialists, only have any real bearing on our deliberations insofar as our European societies are confronted with a whole series of radical and rapid changes operating at different levels. For example, there are macro-phenomena, such as the profound trends of demography and economic recession, but there are also more limited and, above all, more diffuse phenomena such as the emergence and assertion of the youth culture or certain changes in family life. It is important, indeed probably indispensable, to ponder on the consequences these changes have for the functioning of our primary schools and, more widely, on the role which schools should and can play in such changes themselves.

In other words, it seems essential to try to establish how schools react to new demands, as well as to assert plainly that in no event can schools change everything: so complex are the networks of social interactions that it is advisable to restrain firmly at the outset any high hopes that might be entertained about schools' ability to bring about change.

As is well known, a society beset by the queries and doubts prompted by changes in its basic values is naturally inclined to turn to its schools for solutions. But this clearly shows the fundamental ambiguity surrounding the relationship between schools and a changing society, a relationship influenced by two expectations which - on the face of it, at least - are quite contradictory.

The first expectation is that schools should provide the conceptual as well as the pragmatic tools that will enable the changes to be understood and controlled. And it is indeed one of the main roles of schools to develop in pupils a critical attitude towards the prevailing system of social values (whatever the system and values may be).

At the same time, however, schools are looked to as places of refuge responsible for preserving "the sound roots of culture" (Brembeck). And that is consistent with the other major role of schools, which is to hand down, but also maintain, the cultural heritage of the community.

Primary education cannot be regarded as a homogeneous, clearly circumscribed corpus of knowledge and practices. It has its own internal dynamics which oblige it to evolve and change; it now forms part of a process of continuous, diversified learning. In a society marked by change and by uncertainties about the future, it is obvious that compulsory schooling can no longer provide young people with knowledge and skills which will suffice them for the rest of their lives. It has a duty to give them a foundation on which aptitudes and attitudes can subsequently be developed with a view to continuous adaptation.

Moreover, it is becoming increasingly clear that the education dispensed by primary schools is but one of the many aspects of an overall process of education. It is necessary to take the fullest possible account of children's whole range of information sources and channels in addition to formal education, whose complex influence is probably crucial to their development.

1. THE NEW DEAL

At this point a serious word of caution is called for. It might be thought that the school system is influenced only by social and cultural changes directly affecting the 13-18 or 20 age-group. To do so would be to forget:

- that primary education is an integral part of the school system, and hence is affected by many changes affecting the system as a whole;

- that primary education is directly confronted with the challenge of identifying and development a child's full potential at the very stage when the fundamental mechanisms governing the organisation of behaviour and thought are being established. It is known beyond all doubt that, while the effects of variable academic achievement (due, for example, to a head of family's socio-occupational situation) become apparent in the sensitive 15-18 age-group, the initial signs of future strengths and weaknesses will in many cases have emerged during primary education.

1.1. The external pressures: economic and social factors

1.1.1. The profound trends: demography

Many countries in Europe and the western world are being affected by a downward population trend, with varying characteristics and magnitudes but with the same underlying pattern. The sometimes dramatic decline in birth rates since the 1970s is, of course, resulting in a fall in the number of children of school age.

This fall is not necessarily a negative factor in itself, though it is often perceived as such by participants in and observers of education systems. One of the reasons lies in the concomitant restrictions on the recruitment of teachers, resulting in an aging of the teaching profession, fears about the adaptability and innovativeness of education systems as a whole (while the impact of new technologies is giving rise to further anxiety) and a possible threat to security of unemployment. Unquestionably, the closing of classes and even of whole schools as a result of this demographic decline is having a highly negative effect on the morale of teachers. As in any crisis situation, it is prompting queries concerning what should be kept and what should be discontinued; these fundamental reappraisals are accompanied by equally profound doubts about the criteria governing choices. In this situation it is noteworthy that parents are showing a wish to become ever more involved in the running of schools. From the thinking and discussions entailed by this necessary adjustment to external circumstances, something positive is - no doubt indirectly, but unmistakably - emerging.

1.1.2. The profound trends: economic recession

The economic recession is causing every country affected by it to review its system of social and budgetary priorities and values. The educational sector is thus increasingly having to compete with other sectors deemed priority ones (social welfare, unemployment, youth employment, economic revival). Wherever certain budgetary resources formerly allocated to education are being redeployed, this is generally interpreted as having negative effects on the functioning of education systems.

Two indirect effects of the recession should neverthless be highlighted:

i. the anxiety caused by adult unemployment is leading many parents to wonder whether school education really pays dividends in terms of access to the labour market for their children. Their expectations and demands vis-à-vis school systems are being modified as a result, more stress being laid on the acquisition of immediately operational tools rather than on personality training through a broadly-based, liberal education;

ii. like another, but independent, social trend, unemployment sometimes has the indirect effect of reorganising parents' working and leisure time. This is because unemployment (and especially the resources at present used to combat it) helps to redistribute the quantity of work available, with the result that part-time work in particular is on the increase. A rather unexpected result is that some people thus find themselves with "more time" to devote to their children's education and to relations with their school.

1.1.3. The profound trends: the multi-ethnic and multicultural composition of society. Living together or separately?

"One of the dominant themes in the history of mankind is migration. The large-scale European migrations in the post-war period can thus be considered a fresh manifestation of a phenomenon as old as mankind" (Lithman). For the members of Project Group No 8, with their concern for an overall primary education, as well as for participants in the CDCC's Project No 7 ("The education and cultural development of migrants"), the multicultural composition of our European societies is an inescapable fact.

The social and educational response to this situation is the intercultural approach, conceived of the inter-relating of different cultures, a process of cross-fertilisation, communication, openness and mutual enhancement (an approach unanimously adopted by the Conference of Ministers of Education (in Dublin in 1983).

The insertion/integration of foreigners in a society is part of a wider phenomenon (we do not wish here to discuss the general issue of insertion versus integration). This concern to inter-relate different cultural groups and avoid ostracising their members goes hand in hand in our society with the emergence of a strong demand for a "right to be different". For certain States with highly centralised political and cultural systems, this is a completely novel situation.

It is the case of differences versus integration. The right to be different goes pari passu with equal rights and equality of opportunity. For example, the integration of handicapped people, particularly with regard to employment, constitutes a major challenge. In wider terms, what is needed is a whole redefinition (difficult because not explicit) of the "norm" and of deviations therefrom.

A school designed for all thus has a duty to cater for children with special needs. This brings us back to the dialetic between unity and diversity which is discussed at length in 2.2.3.2. below.

1.1.4. The influence of the media and of new information dissemination methods

Even though it has become commonplace to say that our contemporary societies have witnessed the advent and spread of new means of access to knowledge and its acquisition (above all, television but also the cinema and the press, not to mention electronic data processing), it must be recognised that, generally speaking, schools have not yet succeeded in drawing all the necessary lessons. Teachers are often filled with despair at no longer being able to capture the attention of their "customers" in the presence of far more attractive and effective means of mass communication.

The media are abruptly bringing schools face-to-face with the fundamental question of the transmission and acquisition of information. They are throwing a completely new light on the general problem of how knowledge is appropriated and the nature of the process of such appropriation in the case of children (or learners generally). In other words, do the media influence passiveness or activeness in the recipient? And what about schools?

Without going into details, it may simply be noted how relevant the distinction still is which Moles drew 20 years ago between "network culture" (that of schools) and "mosaic culture" (that of the media); and how difficult it is for schools structured, organised mode of dispensing knowledge, dealing as it were with predigested information, to accommodate another mode of acquisition of a casual, diffuse and piecemeal kind. In today's world, the relationship between official schools and the "parallel school" is still one of rivalry rather than a partnership.

And the other inevitable question is do the media have the same influence on different categories of recipient children? We suspect and are even beginning to feel certain that the influence of the media varies, especially according to family background and socio-occupational (and socio-cultural) situation. What is the deeper significance of this for a school which is striving for equality?

1.1.5. The new family structure

In the triptych formed by the family home, school and parental work, any change to one of the elements affects the whole. This was the case, for example, with the recent changes in the social "status" of women and perhaps in that of children too.

i. Women are increasingly tending to work outside the family home. The increase in female employment, sometimes on a spectacular scale, is above all due to the gravitation of women to the tertiary sector (services), where employment has continued to expand. This is quite obviously bringing about a number of changes in the daily lives of families. One of them - in our view, a very important one, but usually under-emphasised - is that the time spent by children and adults speaking with one another is liable to decrease because of the reduced availability of parents who both work; when we say "speaking", we are thinking in wider terms of the interaction and intercommunication within the family, whatever the form (channel) taken by this communication. This is a genuine problem, primarily emotional but also social.

ii. At the same time as the number of children per family is falling (with the result that families are placing greater demands on each of their children), less unity may be observed in the "conventional" (nuclear) family cell; the married father and mother and the children born in wedlock (even though it needs to be remembered that this conventional family cell is, socially speaking, a fairly recent institution originating in a bourgeois social model of the mid-19th century).

It is a fact that divorce is on the increase in many of our European countries. In respect of Sweden, Lithman maintains that half of present-day marriages will be dissolved, probably by divorce, and that possibly half of the children born of marriages contracted this year will see their parents divorced before they they reach the age of 18!

iii. Although less visible than divorce or extra-marital cohabitation (and procreation), an important change is occurring in the function of the family.

The family is less and less a unit of economic production, and accordingly the bond between its members is more and more a purely emotional one. It is interesting to note that one of the consquences of this is that each member of a family is economically less dependent on the family (though this bald statement should no doubt be qualified by observing, for example, that at the very time when young adults are increasingly independent of their families in economic terms they are living longer and longer with their parents; this is the case in many European countries and was well illustrated by the last French population census, in 1982).

Whether on account of a "disintegration" of the family framework or for other reasons concerning family interrelation, the family is at the centre of a heated debate. For our own purposes, let us note that this trend affects first and foremost children aged between 6 and 12 who are the main subject of our study.

1.2. The internal pressures: new knowledge about child development

The discovery of the child as a person with his own mode of functioning, together with the advances in knowledge about child psychology and psychoanalysis, has naturally had far-reaching effects on teaching and on schools. These effects, particularly apparent since the 1950s, have led to a significant shift in educational structures and practices.

Although the factors which contributed to this trend are very diverse, progress in educational theory and practice has clearly played an important, indeed probably fundamental, part. First of all, the growing up of an educational research system has enabled the necessary bridges to be built between fundamental and applied research, especially in the field of educational innovation.

1.2.1. The present convergences after the past divergences

During the early part of the 20th century, educational research and development psychology research evolved along quite separate lines. And because there is no reason why research should be free from the underlying ideologies, the differences between conceptions of the social roles of schools are naturally to be found here too.

Taking a behaviourist view, the "traditionalists" (school of Locke, Herbart and Skinner) were primarily concerned with the effectiveness of teaching methods. In their view, responsibility for a pupil's learning lay above all with the teacher, who was expected to teach his subject clearly and authoritatively. It was only natural that, at the same time, the traditionalists tried to develop as precise and exhaustive a methodology as possible in order to permit the indispensable objective evaluation of pupils' attainments.

On the other hand, the main advocates of "progressive education", such as Rousseau, Dewey and Piaget, emphasised the importance of a pupil's personal choice and initiative. This initiative is part of a general process of natural movement, regarded as universal, occurring in obedience to a virtually established and irreversible order (Piaget's "stages"), a process which teaching and education simply have to follow and are powerless to change.

In the past 20 years, progressive education, particularly Piaget's work has encountered increasingly severe criticism. A large number of research projects have placed a question mark against the two main postulates, namely the universality of structures and the inability of education to influence development.

The concept of interaction has been given added support by a growing number of researchers investigating all manner of fields (paediatrics, child psychiatry, development psychology, social psychology or ethology) who have demonstrated since the seventies that the child's systems of interaction with his social environment fundamentally affect not only his psycho-effective but also his cognitive development (mechanisms not explored by Piaget). Development in the cognitive field is thus envisaged primarily as a process of communication; the communication space around a child (his family, friends, the classroom, etc.) functions as a focus and generator of "cognitive conflicts". These conflicts lead (by a series of to-ings and fro-ings) to structure and restructure his thought, thus enabling him to build up his knowledge and develop his personality.

It is now known that the benefits of guided practice and learning are scarcely distinguishable from spontaneous progress in terms of the retention and classification of attainments. The concepts based on figurative models and analogies are at least as important in the case of a child as those resulting from abstract and logical thought; and this is true even in the case of adolescents and adults. These findings thus enable the doctrinal conflicts to be transcended and their contributions pooled so that the question of improving learning processes may be approached in a positive manner.

It would seem that in western Europe, although Piaget's approach as well as the "learning action" approaches (from the Soviet Union) still carry considerable weight, the neo-behaviourist and metacognativist movement (prevalent in the United States) is at present gaining ground. According to this systemic approach, the individual improves his performance level with age by acquiring (meta-) cognitive strategies of a more or less general kind and increasing his ability to exploit those strategies effectively and flexibility. At the same time, he extends his knowledge and organises it better and better.

The systemic and psycho-social approaches thus combine to draw attention to the importance of the interactions, representations and communication phenomena inherent in any process of development, as a child's development cannot, of course, be conceived of outside the social context in which he lives. In this connection, the psycho-emotional and social factors specific to the classroom situation and to the various types of co-operation in class, both within the school and between the school and the family, merit particular attention.

In this context, research into psycho-emotional development proper, viewed from the standpoint of its impact on the child's optimum cognitive development, reflects an interesting trend. The 1950s witnesses the first attempts to describe the development process of the concept of self; they paved the way for current investigations into intrinsic motivation and the development of life skills and self-assurance. Exploration of the mutual dependency between self-evaluation and behaviour thus enable the following conclusions to be formulated:

i realisation of one's own incapacity has negative repercussions of intrinsic motivation;

ii. the self-image of a person as unintelligent reduces the level of performance and is detrimental to the effects connected with success and failure;

iii. a sense of one's own ineffectiveness results in defensive attitudes and possibly even phobic reactions;

iv. **the general tendency of a human being (and hence of a child) to perceive causal links between failure and a sense of incapacity and impotence gives rise to considerable distress and, ultimately, depressive reactions.**

To complete this rapid survey of current research, it seems important to draw attention to the investigations being conducted in a field that is quite different and yet surprisingly close to those already mentioned, namely chronobiology.

The main lesson to be learnt from this science is that human beings (and therefore children in particular) do not do things at random times. It has been shown that there are peaks in circadian rhythms (that of muscular strength, long-term memory, reaction time to visual and accoustic stimuli and complex intellectual operations occurs between 4 pm and 8 pm). and that the times when a child is less alert or more sleepy coincide with reactions of defensiveness to or rejection of information (early afternoon for all age groups).

We can therefore perceive the value of taking chronobiological data into greater account when reconsidering the way the school day is organised. Moreover, it has been demonstrated that the bio-rhythms of children differ substantially and are linked both to individual development and to the living and working rhythms of the parents (on whom the child's waking and sleeping rhythms depends). All in all, the findings reached and lines of enquiry explored bear out the need felt by educational psychologists for fuller consideration of children's widely differing personal rhythms with regard to their powers of alertness, attention and concentration.

Current research in the field of education (and of the new techniques) thus goes beyond the "mere" describing of a child's internal development processes. The questions it raises (and considers) are of great importance for teaching, namely: how are structures acquired and what parameters, internal and external, enable these processes of acquisition to be influenced (and speeded up)?

1.2.2. Mode of thinking, mode of learning

A child is not a passive recipient of information. Instead, he tries to integrate the information he receives into his own conceptual system by restructuring it with the help of his cognitive strategies and basic knowledge.

The way of thinking not only of children but also to some extent of adults (and hence also of researchers and teachers) is largely dependent on this circumstance and practical experience, which in turn form part of a wider system of connections and interrelations specific to the socio-cultural contexts. A child will only gradually learn to disconnect his thought from this reference framework conditioned by his subjective experience and to interiorise his interlocuter's point of view, or again to adjust himself spontaneously to the new object of learning.

Contrary to hypotheses on the egocentricity of children's thought and the imperviousness of structures to learning, we now know that one of the main obstacles lies in the fact that children have difficulty in finding the right approach to a problem and get wrong ideas about it (owing to misleading analogies induced by the subject-matter rather than to errors of logic). There is a kind of discrepancy (or at least a time lag) between the child's thought process and the adult's expectations. While the adult, on the basis of his own learning model, misinterprets the child's reactions.

It will therefore be the task of schools and hence of teachers to escort children in this hesitant and difficult progression towards "disembedded thinking". They will do so either by giving the child suitable cues (various facets of the problem, various materials and practical aids, etc.) or by creating educational situations (tutoring, group work) permitting reformulations of the problem as well as the off-centring required for finding solutions thereto, or of course by combining both these possibilities.

1.2.3. Success at school - an initiation rite?

Success at school depends just as much on the availability of thought strategies and on ability to mobilise them rapidly and update them (practical skills) as on the presence of a wide range of well-structured and differentiated types of knowledge and techniques. Without denying the importance of processes whereby specific types of knowledge are appropriated (learning of written langauge, arithmetic), we deem it appropriate to give detailed consideration to the role played by heuristic strategies in any appropriation of knowledge by children.

It is generally recognised today that there is a specific capacity for learning, independent of the subject-matter, usually described as "learning aptitude or style", or, in other words, a particular way of deploying and using learning strategies. We are talking here about general skills such as the mobilisation of anticipation and planning mechanisms, capacity for self-evaluation and ability to use feedback information from one's environment.

This capacity for adaptation and learning is largely transmitted by mediators in the form of parents, teachers and friends (what is called a "cultural transmission" mechanism in the psycho-social approach). If, for various reasons, the family has not been able to provide the mediation expected of it (pre-, peri- or post-natal deficiency, disturbed family relationships, cultural transplantation due to migration, etc.), if it refuses to do so (anti-conformism, asocial environment, etc.), if, in short, the child suffers from a "cultural gap" (some even speak of "cultural deprivation") when first going to school, then learning difficulties will necessarily occur.

According to the cultural traits and modes received before schooling, some children do not possess the necessary decoding instruments for understanding the "rules" of the school society "game", for guiding themselves through self-correction and, hence, for adapting their behaviour to the new context and data. They do not know or understand what is expected of them, nor what purpose learning to read, for example, might serve. Until they succeed in adapting themselves to their "job" as pupils, learning in a collective situation will continue to be ineffective.

1.2.4. The desire to learn

For a long time it was assumed that a child learnt mainly through external stimuli. It is now known that continuous learning occurs only if children have developed a need to learn irrespective of subject-matter, or of any situational variables, qualification or even sanctions.

In testing his ability to control a phenomenon in the world around him, in experiencing the pleasure of seeing an expectation or hypothesis materialise and, above all, in finding new solutions, a child is given an intrinsic motivation which is all the more important as it meets the existential need of any human being to understand the reasons for the gap between reality and his conception thereof. A child is not, however, merely engaged in solving the cognitive conflicts provoked by his natural and social environment; often he will consciously and actively seek them out, which suggests that the solving of demanding and difficult problems is in itself a source of enjoyment. Provided he undergoes positive experiences with those around him a child will develop a will to tackle contradiction and conflicts so as to have the pleasure of seeking new solutions. Without such experiences, he will become more and more defensive or withdrawn, thus objectively rejecting any idea of taking more risks and any need for conflict and effort liable to be unsettling or even destructing.

Whichever option is chosen will obviously largely depend on the development of the child's self-concept and his expectations regarding his own proficiency; it will also depend on his expectations regarding availability of others and on whatever relationship of trust he has succeeded in establishing with those around him and his peers.

From this standpoint, the self-concept may be viewed as resulting from awareness of one's twofold ability to overcome and transcend conflicts created by expectations (or other forms of behaviour due to discrepancies between representations and reality) and thus to influence the course of events. But we know today that the development of the self-concept (and hence of intrinsic motivation and a desire and ability to learn) largely depends on the ability of the child's entourage to create a positive and conducive climate. It would seem that a demanding attitude, accompanied by the message "you can do it" as well as "you are someone special", enables a child to develop a positive self-concept and acquire the motivation that goes with it. Such attitudes as exactness and rigour, level of aspiration (and a desire for social advancement), fear of failure and a liking for risk exert a crucial influence on a child's whole cognitive, psycho-emotional and social development.

1.2.5. Learning - a successful exercise in communication

After the behaviourist approach, where a child's learning behaviour was mainly perceived as a reaction to the teacher's style of teaching, as well as the constructivist approach, which concentrated on the child as the sole agent of his own development, interest is now being taken in the social and relational interactions that occur in the classroom during the transmission of knowledge. Not without a certain degree of provocativeness, some now depict school as "work organisation units of knowledge", by reference to the period when schools were sometimes perceived as charitable institutions, factories or hospitals and sometimes as complements to or substitutes for the family (or even as war zones).

This perspective, prompted by the systemic and psycho-social approach might offer a promising way of surmounting a notorious difficulty inherent in the previous approaches, namely the fact that most of our knowledge about children's development refers to children as individuals. In their daily work, however, teachers deal more often than not with children collectively; they ought no doubt to know more about the social psychology of groups than the clinical psychology of individuals.

This leads us to consider the social position of pupils (and hence the class unit) as well as the school community (a new concept in itself) from a fresh angle.

In the past, children were mainly regarded as unskilled workers; indeed, they often still are today. Accordingly, teaching strategies became a compound of close supervision by the teacher, clearly defined and programmed tasks (set without any consultation of those principally concerned), immediate corrective feedback and painstaking inspection, ie recommended strategies for supervising unskilled workers. This was in line with a type of educational research that concentrated mainly on children from underprivileged and disadvantaged socio-cultural backgrounds and sought to devise mainly compensatory teaching methods.

An alternative to this would be to seek appropriate ways of transforming the "unskilled worker" status of chidren into a "skilled, professional worker" status. This would inevitably involve a change in educational strategies. It is well known that skilled workers operate better when they have a say in their working conditions and their type of production; the same applies to pupils. In the course of their personal development, chidren become quite capable of deciding on their future activities and studies.

This ability, however, cannot really thrive and develop unless it is consciously and regularly encouraged by children's educational environment. Like all human beings, children do not have the necessary ability to assess themselves completely objectively. They do, however, possess a level of knowledge about themselves (and how they themselves work) which teachers can seldom attain (any more than parents, for that matter). Accordingly, learning could be better conceived of as the result of a history and a negotiation, as the happy outcome of a special dialogue between the child and his teacher.

1.2.6. Defining precise, practicable requirements - the didactic contract

As already seen, a child's development and learning occur in the optimum manner when he is confronted with suitable requirements and clearly discussed tasks. If the child has to devote most of his energy to trying to understand the expectations of his teacher and of those around him, the effects on his learning will quite obviously be negative.

In this context, the didactic contract seems an excellent educational means of managing both the group and the individual. After being developed from Rousseau's concept of "social contract", it was introduced into mathematics teaching to denote "the teacher's (specific) habits as expected by the pupil and the pupil's behaviour as expected by the teacher", then extended to a more general teaching context.

Regarded as a kind of originating principles of meanings and pratices in the transmission of knowledge, the didactic contract is primarily a means of regulating the interactions between the pupil and his environment.

Instead of guiding adjustment efforts from outside, the interactive approach may be interiorised by the pupil provided he is made to:

- realise the aims of education and the teacher's objectives;
- clarify his own needs and aims;
- work out ways and means of controlling learning situations;
- increase his ability to monitor his learning processes and progress towards his goals by himself;
- develop a sense of responsibility, the self-concept and self-confidence.

He will then be in a better position to evaluate his performance against (and possibly withstand) the teacher's expectations and demands, which might not be consonant with his individual development and learning needs.

Consequently, instead of external control over learning, typical of the behaviourist conception, this approach leads to internal, diversified control, partly exercised by the pupil in interaction with the class group, the teacher and the object of the knowledge.

1.2.7. A new look at school assessment

By and large, school assessment has traditionally been used to measure a child's performance in relation to the prescribed form. Nowadays, with the more dynamic approach, the subject and process of assessment are envisaged in a more differentiated manner.

A sound appraisal of a pupil's work, made in conjunction with other types of feedback, may provide considerable support for his learning process. But at the same time it presents a difficult challenge to teachers or schools trying to reform their methods; for any attempt to improve assessment methods from an educational point of view is difficult owing to the complexity of all learning situations as well as the traditions behind the various learning models, standards and certification practices currently prevailing.

Even so, the new functions and forms of assessment worked out in the course of the intensive research conducted since the late 1970s make it possible not only to correct the inhibiting effects of inadquate assessment methods but also to increase the effectiveness of academic learning:

i. learning conditions are optimum when the pupil is made clearly aware of the objectives pursued and regularly informed of his progress. From this standpoint, the most suitable form of assessment is the formative kind;

ii. an appraisal of pupils' work is useful, indeed necessary, when its various forms and functions are clearly defined. It is particularly important, however, to know what is being assessed and how it is being assessed, and it is therefore desirable for formative assessment to be clearly distinguished from the various other forms such as summative assessment and prognosis assessment.

It is important in this context that pupils and teachers should be less concerned with calculating pupils' marks than with facilitating and clarifying the learning process. For both sides, being able to identify the point at which a pupil achieves this or that cognitive, affective or social-skill objective is a key stage and a source of support for the remainder of the process.

Lastly, an analysis of the assessment results (by means of questionnaires and answers) enables the pupil to be provided with the appropriate educational assistance. If assessment is construed and carried out in this way, the pupil will wish and be able to take over more and more responsibility for it (through systematised self-assessment) and thus succeed in managing his own learning process.

While, conceptually, these conclusions from current research may seem attractive, they are difficult to put into practice, as they call in question most of the teaching methods and school structures at present prevailing.

i. They call for differentiated teaching which allows for individual differences regarding prerequisites, rhythms and styles of learning;

ii. They oblige schools to limit collective treatment to the necessary minimum by defining the essential subject-matter of basic training, while fostering a certain diversification of forms of learning;

iii. Lastly, they presuppose a high degree of structural flexibility enabling the different tempos of development and learning to be accommodated, in particular by allowing pupils to remain at an academic level or stage for variable periods.

In this way a proper place could be accorded to cultural pluralism and the variety of desires and needs to learn, with a view to subsequent diversification of forms of excellence.

1.2.8. By way of a conclusion, it seems important at this point to express as explicitly as possible our view on the framework within which innovation in primary education should be understood and conceived of.

We have emphasised the concept of "interaction" as being the most promising one for educational innovation insofar as it seems to denote a new and effective direction while enabling the predominant - and opposing - values of the two models used in the past to be retained and integrated. The philosophy underlying this report stresses not only the cognitive aspects of learning but also its emotional, interpersonal and social aspects.

Special attention should therefore be given to creating a climate favourable to change, since learning and developing (ie innovating) means "bargaining" and "negotiating" (21). The aim will be to enable social relations to be formed which are satisfactory and hence stimulating through being imbued with mutual trust and respect between the various parties concerned (such as pupils and teachers, teachers and school inspectors, parents and school authorities) as well as among partners belonging to the same group (eg among teachers and among parents).

This interactionist point of view should be clearly seen as the leitmotive of the following chapters, particularly with regard to the redistribution of the responsibilities, obligations and roles of the various parties involved. Innovation in education, like all forms of collective action, is not a "natural" phenomenon that will spread "spontaneously"; it is a conflictual social phenomenon whose existence raises problems. Whereas in the past, people in authority often sought to impose their particular view of reality on those "below" them, the approach adopted here assumes that the general view of reality results from interaction and negotiation between the participants, provided that each one is given some room for manoeuvre and feels able to use it.

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2. THE PRIMARY SCHOOL IN A CHANGING WORLD

Whether the pressures we have just described are to be found inside or outside educational systems, they do not all act in the same place at the same time with the same forces. It is therefore legitimate and perfectly understandable that the solutions or partial solutions which are beginning to be produced everywhere for these various urgent problems should not seem particularly coherent from one educational system to another and even within a single educational system. But everywhere these solutions demonstrate the will of schools to adapt and they mobilise the formidable assets which the number and quality of their employees constitute for the different school systems.

2.1. The objectives of primary education

At the very beginning of Project No 8, agreement was reached on the need to seek a joint answer to a number of general questions, namely: what aims, what objectives, what contents and what organisational system (or systems) for primary education?

It is clearly proper that one of the basic questions should relate to the objectives of primary education. This question emerges from the conclusions and recommendations of the Vaduz Conference (1): "What are the essential elements concerned with knowledge, skills and attitudes which every school child should have the opportunity to develop? How can the primary school contribute to the development of individual autonomy along with a sense of social responsibility?"

An attempt was made to answer it: "Primary education has to provide more than a narrow grounding in reading, writing and arithmetic, although these remain important. It has to widen children's perspectives of their immediate and wider physical and cultural environment. It has to help children to acquire and practice democratic values of tolerance, participation, responsibility and respect for the rights of others. It has to stimulate the development of knowledge, skills and attitudes to learning which will shape their future responses to the demands made upon them by the secondary school, by the work place, and by the family and community. Primary education is, thus, a crucial foundation stage in what will be a process of life-long learning and in a multicultural society."

On these general objectives there was unanimity among the member States; but, obviously, they do not have exactly the same meaning or scope in every country, since conceptions about man, children and society are not necessarily identical.

The translation of these general objectives into practical terms, the way of implementing them, the resources needed for the purpose, the resources already available and those to be made available - for all these factors there are as many choices as there are educational projects.

Despite their differences, however, curricula are confronted with the same problem as regards certain "new" subjects, viz: should they be treated as separate subjects, or should they be incorporated in the more "basic" activities already in the curriculum? This applies for example, to environmental education, health education, information technology, human rights, European and world solidarity, creativity, self-expression and so on.

2.2. Educational projects, diverse and common

Amid this great diversity of educational projects it is nevertheless possible to identify some salient features common to them all, viz:

- fundamental education, a qualitative conception of training;
- respect and support for a child's individuality, advocacy of a differentiated type of teaching;
- the need for continuity in a child's education;
- the education system: improving the functioning of schools ... a genuine challenge.

2.2.1. Fundamental education, a qualitative conception of training

It has long been widely accepted that encyclopaedic knowledge is of very limited value for discharging the responsibilities of life. Even so, the subject-matter of education is constantly expanding. School authorities, teachers, curriculum planners, teaching aid producers, and even research workers are often at a loss when called upon to define new learning objectives, make a selection among the different subject proposed and then justify their choices.

How can it be told what is important at present? Who can say nowadays what is essential? What criteria should be used for making such an analysis? Amid this uncertainty, choosing to increase the subject-matter to be studied (by successive additions without any real subtractions) does in fact seem at first sight a kind of non-choice.

Today, the only key to success lies in thinking about the central concept of compulsory schooling and its role of providing a general training. The concept of elementary or fundamental school should be reverted to and investigated in depth.

To say of a school that it is "elementary" or "fundamental" is tantamount to saying that its function is to provide the necessary basis or foundations. Giving someone an elementary training means giving him the basic knowledge, attitudes and skills that will enable him to learn efficiently in any new situation. Fundamental education therefore means not so much the acquisition of all the skills required for the rest of one's life as the acquisition of a "basic equipment" in mental and personal terms. This does, of course, include knowledge but a knowledge of the essential phenomena of life and society (and of their interrelations) is more important than a knowledge of facts and details. Practical skills also form part of this equipment, in the form not of specific application techniques but of strategies for thinking, problem-solving, communication, group work and learning. Life skills are a further component, in the form of attitudes suited to realities, the environment, society, the state, technology and oneself.

There is no absolute definition of what is elementary or fundamental in this sense: it partly depends on the child's age, his stage of development, his environment, his experience and his background. And it is here that the true difficulty of the undertaking lies.

2.2.2. Respect and support for a child's individuality

2.2.2.1. Equality of attainment through differentiated teaching

The problem of equality has exercised teachers and other educationists even since the introduction of compulsory schooling. In the early 20th century, however, this democratic concept of equality tended to be constructed by all participants in education as denoting access to education for all children - first of all primary school, then secondary.

All the same, it was realised that equality of access to education did not necessarily imply equality of opportunity for self-fulfilment and success. Disregard of inequality of opportunity in the educational field often leads to school failure, or at least non-achievement, which of often decisive not only for the remainder of education but even for success in life.

As a result, equality of access to education has gradually been replaced by a quest (and demand) for equality of attainment and opportunity. A school's principal role is to foster each pupil's success, ie enhance and develop his individual capacities. For this purpose, it must ensure that he masters a maximum number of instruments so as to be able to participate as fully as possible in community life in all its aspects and be ready to shoulder social responsibilities.

However, one of the important, if not essential, functions of primary schools is to bring together - in a three-fold unity of place, time and action - children from all backgrounds and of all abilities. Accordingly, any teaching is limited by the two factors of unity and diversity.

The concept of unity emerges in at least two areas:

- the totality and uniqueness of each child, which implies affording every child an opportunity to develop all his aptitudes and potentialities harmoniously;
- the aims and objectives of primary education, which are the expression of what society expects from it in terms of attitudes, skills and knowledge.

This principle of unity is involved in a continuous dialetic with the other prinicple, that of diversity:

- significant differences between pupils, necessitating an individual style of learning, preclude the achievement of objectives common to all;

- there is no proof that all potentialities are equally exploitable in the same child; personal inclinations, social background, chance and sometimes a handicap may result in only some of them being developed, possibly at the expense of others.

There is, of course, no contradiction between, on the one hand, the principle of equal rights to education (or equality of attainment) for all children, regardless of their ethnic origin, sex, socio-cultural background, language or development potential may be (handicapped children, exceptionally gifted ones, talented ones, ones without any fixed abode, etc.) and, on the other, the pedagogical and didactic need to diversify the help and attention given to them according to their particular needs.

The diversification of teaching for egalitarian purposes, with the aim of reducing disparities of performance within the class and providing additional help for pupils who need it, should not, however, obscure the fact that diversification may also have a selective tendency resulting in inter-individual disparities being increased rather than attenuated and a "noble" stream of excellence being given special treatment (often de facto, seldom de jure). Teachers, parents and educationists should make a clear choice between the two tendencies and bring their practices into line with their ideas and words. It seems important to us that this attempt to achieve equality of attainments should be accompanied by the removal of all obstacles which are merely disguised forms of selection.

The very "raison d'etre" of differentiated teaching is to establish and promote genuine equality of opportunity (even through inegalitariean treatment). Stress has already been laid (see 1.2.2. and 1.2.4. above) on the importance of allowing for each child's personal interests and "style of learning". While such an approach demands that priority be given to "active methods" (heuristic methods, study of concepts through discovery, didactic contract, etc.), it can not be properly developed without some degree of differentiation of the act of teaching.

A distinction is usually drawn between several aspects of such differentiation: (2)

- differentiation of the subject-matter of teaching. Not all pupils should necessarily study the same subject at the same time and in the same way. According to their interests and abilities, they will acquire different types of knowledge and skills.

- differentiation according to the level of learning objectives. Not all pupils can achieve the same level of permanent, complex knowledge, skills and attitudes in all subject areas. While uniformity of objectives can and should be accepted with regard to fundamental knowledge, greater diversification soon becomes necessary; the educational choices made will be guided by a concern to accommodate the child's motivations and potentialities. Pessimists will see in this approach a mere confirmation of the psycho-social differences between individuals and the inability of schools to have only remedial effect. But an optimist will readily see to what extent individualisation of this kind provides children with opportunities to assume fuller responsibility for their own education.

- differentiation of teaching methods. This is the most conventional form of differentiation; according to the pupil's style of learning and manner of working, the teacher will need to adapt considerably - within the class group and according to the various stages - the methods, work forms (individual work, collective work, work in small groups, etc.), practical teaching aids and audio-visual material used.

- chronological differentiation of acquisition of knowledge. This is no doubt the most difficult, but perhaps the most promising, type of differentiation. A large number of pupils, even though of a good intellectual standard and highly motivated, appear weak, sluggish or overwhelmed by their apparent inability to organise their time and work; they are merely slow and take longer than others to perform the same task. There are few occupations in life as implicably selective in terms of time as the "job" of being a pupil; why should pupils be prevented from working at their own pace when judicious chronological differentiation of teaching would easily permit this?

Whatever its form, differentiation of teaching implies a high degree of involvement of the pupil, who is made progressively more responsible for his own learning. There are even many examples of pupils who help their struggling classmates in this way by a process akin to tutoring.

2.2.2.2. When success becomes a goal

It goes without saying that there is no single form of "success", and that it is appropriate to speak in terms of "different forms of success" which respect the child's individuality.

"Any child may be brought up to a specific level of proficiency (integration of knowledge and skills) provided that he is allowed the necessary time and that the time spent mastering learning assignments is put to the most profitable use" (3). This didactic strategy aimed at ensuring that the great majority of pupils in a class become proficient in the basic skills, constitutes, in our view, one of the most consummate models enabling pupils' progress to be closely followed through a learning sequence.

The approach to "proficiency" comprises four educational components:

- consolidation of the basic operations (the prerequisites) before more complex ones are tackled;
- identification and specification of thresholds of proficiency: a pupil must be informed of the learning objectives as well as of the criteria for judging whether they have been attained;
- continuous formative assessment, followed in each case by feedback of information to the pupil;
- remedial teaching sequences with sufficiently diversified materials which enable each elementary operation to be accomplished within the sequence (4).

Naturally, this model presupposes that the individual rhythms of learning should be carefully respected. Its value lies in the emphasis placed on: the pupil's active use of various learning strategies; an analysis - through formative assessment and self-assessment - of factors retarding or hindering progress; and the importance of the pupil's autonomy, as codified and regulated in the didactic contract (see 1.2.6. above).

2.2.3. The need for continuity in children's education

Children's development is neither a continuous nor a homogeneous process. It does not occur in the same way for each aspect of the emergent personality, and the progression is its salient feature, it is also marked by plateaux and even setbacks. Discontinuity in development may give rise to problems in the learning process, especially in the absence of differentiated and individualised teaching. Discontinuity in educational assistance would only increase learning difficulties. Hence the need for continuity in children's education.

2.2.3.1. Continuity in educational structures

Many children experience genuine difficulties when moving on from pre-school education to primary education, because there is often a break between these two levels of education. Here, continuity should first of all be sought in terms of teaching methods, by applying to primary education the most positive features of pre-school education's methods (provision for the broad expression of creativity, flexibility in the organisation of activities, relaxation in the form of games, use of equipment which is familiar to the child and an integral part of family life, etc.).

Better linkage between pre-school and primary education also calls for the same institutional framework for both levels. This does not exist in all west-European countries and, as a result, it is not easy to achieve the desired continuity. One example of structural continuity is provided by the Netherlands, where a basic school for children aged 4 to 12 has been established (5).

Before achieving such structural integration, however, some member States must still overcome various geographical and/or demographic difficulties in order to develop optimum pre-school education for children aged 3 to 6. Concern for continuity is not absent from this strengthening of pre-school education and should enable separate development of the two types of school to be avoided.

At the same time it may be observed that the transition (or perhaps non-transition) from primary to secondary education entails almost insurmountable difficulties for some children. Primary education must, of course, take account of secondary education's expectations (6), but the linking of primary and secondary levels also necessitates some adjustments to the first stage of secondary education.

Many children apparently suffer from a conflict between two educational approaches during the primary-secondary transition. Primary schools are usually characterised by an approach centred on the child, who generally spends his school time in the same, highly individualised classroom under the supervision of one teacher. Secondary education, for its part, is chiefly centred on subjects, taught by several teachers, all too frequently in a variety of characterless rooms.

There is something artificial about this rift, as indeed others, such as supposed rifts between contents and methods, between knowledge, practical knowledge and life skills, between emotional and cognitive objectives and between the encouragement of independence and the fostering of social integration. Continuity is not synonymous with identity, and the different aims assigned to primary and secondary education can very easily accommodate different approaches, provided these are complementary. What should be avoided is a sudden disruption of the various components of school life because of its unsettling effect on certain children (espcially those with a "cultural gap" vis-a-vis school: see 1.2.3. above). What really jeopardises continuity in children's education is the fact that attempts to make primary education more independent of secondary education have led to an accentuation of the above-mentioned rifts, which are in themselves artificial.

For that reason, with a view to ensuring contintuity in the education of children aged 3 to 14 (or 16), some think that a genuine basic school should be established to cover pre-school education and the period of compulsory schooling (ie both primary and lower secondary education). Others, it is true, advocate keeping differentiated stages, particularly towards the age of 11-12. What matters, in our view, is that, regardless of structures, teachers should ensure that there is no break in continuity.

The question of structural continuity also arises within primary education. The frequent rigidity in the grouping of pupils does not necessarily correspond with pupils' individual rhythms of development and learning; indeed it sometimes interferes with them. A more flexible system of organisation would foster continuity in teaching by easing the conditions for transition from one group to another and from one class to another.

2.2.3.2. Continuity in ordinary and special education

One of the main challenges to education is the problem of catering for children from various handicaps, whether physical or mental, who have long been deemed incapable of attending ordinary schools. Such children raise in a particularly (and sometimes painfully) acute form the fundamental question of equality of opportunity. Many European countries have long been making a considerable effort in favour of handicapped children. The general trend has been to offer them a special education system with a curriculum suited to their circumstances.

However, there has always been opposition to special schools for handicapped children, and in recent years strong support has been given to the idea of confining such education to seriously handicapped children. Several member States have resolutely espoused such a policy: taking the concept of differentiated teaching to its limit, they consider that such children primarily belong in the same school society as other children of their own age (even if, for example, their physical condition necessitates special attention or care). This is the purpose of the temporary or permanent integration of handicapped children in ordinary education, which is the only way in which schools will pave the way for the genuine social integration of such children.

Thinking on the subject of successfully integrating handicapped children into ordinary education was soon pursued to the point where it linked up with thinking about ways of dealing with heterogeneity in general among schoolchildren. And it is only natural for the idea of integration to be regarded as applying to all children who, by virtue of their cultural and social characteristics, are in a situation of educational abnormality involving special needs. In this connection, there obviously spring to mind the children of migrant workers as well as children whose parents have no fixed abode (gypsies, nomads, etc.). But one of the important lessons learned from Project No 8 was that the educational problems raised by exceptionally gifted children (possessing special talents for music, art, or bodily expression, for example) are in no way fundamentally different. The role of schools is to accept such children with their specific characteristics and provide them with the help and support they too need (7).

Primary schools are therefore intended for a whole generation (and for each child as a separate individual), and they have a duty to accommodate the generation's social, ethnic, and cultural components in all their diversity. The societies in which our children will live as adults will be predominantly pluralistic and multicultural (8), and ensuring that children have their own identities in such societies presupposes that schools should be able forthwith to recognise and accept differences and, better still, treat them as ordinary. No one should be obliged to give up his characteristics, but living together should enable everyone to achieve better self-knowledge as well as fuller knowledge and appreciation of others. In that way our children will discover that others are basically the same as themselves.

It is easy to perceive the link between these ideas and practices concerning integration and a number of ethical values, such as tolerance and mutual respect. These values are relevant to the objectives of primary education and should be made part and parcel of everyday educational activities.

Naturally, therefore, integration cannot be confined to setting up heterogeneous groups. This is indeed a structural prerequisite, but it should endanger a genuine educational behaviour enabling real integration to be achieved.

2.2.3.3. Continuity in school and family life (9)

Responsibility for a child's education lies primarily with the family. This presupposes that between the family and the school there should be a contract of mutual trust which clearly sets out the principles of co-responsibility and joint education. The contract implies a positive dialogue between parents and teachers on the objectives of teaching, the school's educational project, the organisation of activities and the assessment of results.

This is in fact another form of educational continuity: the teacher-parent dialogue must lead to the drawing up of a development plan for each child, which can only be done through proper co-ordination between school education and family upbringing. Practice and research have clearly shown that close parental involvement in a school's life is highly conducive to a child's success.

Co-operation between primary schools and families is also necessary for another reason. As an organised, complex system, a school may have a tendency to function independently and thus become more and more remote from a child's extramural life. A kind of social isolation may sometimes be observed in schools, and this should be attenuated by relating school subjects more closely to children's experience. Such an approach is particularly relevant when there is a wide social or cultural gap between a family's and a school's educational attitudes; here is a further example of the rift which must be avoided.

In practice, close co-operation would not necessarily raise any real problems if it were designed and organised in a framework of continuity. However, despite efforts on the part of schools and families alike, co-operation is still being impaired by conflicts, misunderstandings and mutual mistrust.

It is important to reduce resistance on the part of schools through fuller dialogue and better co-operation strategies, accept the lack of involvement on the part of certain parents and generally avoid unnecessary conflicts between families and schools, of which children are the first victims. One highly promising idea would be to provide parents, teachers and administrators with opportunities for joint discussions or even joint in-service training, so that co-operation may be used on greater understanding of a family's and a school's complementary functions.

2.2.4. Educational organisation: improving the functions of schools - a real challenge

In recent decades the concept of schools as institutions and organisations has considerably evolved owing to the various pressures exerted on schools.

- Schools are increasingly regarded as organisations, almost as undertakings (where output must be rationalised to match financial outlay). The close links between school systems and social change are clearly discernible in the emergence (and spread, sometimes to the point of ubiquity) of a new terminology - denoting new concepts - for discussing their functioning; our schools have entered the age of management, rationalisation of budgetary choices, quality indicators and cost-effectiveness.

As in the case of consumer products, everyone nowadays talks about the quality of education. But it is disturbing to note how many different meanings are given to this word by the various categories concerned (parents, teachers, trade unions, industry, etc.). The definition of quality of teaching varies not only from one country to another but also from one period to another and one educational policy (or non-policy) to another.

- Schools are simultaneously being converted into full-scale "educational communities" in whose functions new partners are emerging (pupils and parents). Each of the members of such communities (pupils and parents, but also teachers, school principals and organising authorities) has a role in their functioning and wide responsibilities in setting objectives, determining priorities, choosing means and evaluating progress.

Each partner thus occupies a specific place in this educational community, whose operation calls for novel, non-bureaucratic forms of co-operation where human relationships have a decisive influence.

- Schools are also broadening their field of action. Without prejudice to the acquisition of fundamental knowledge and basic skills (the early instruments of school success and social integration, and the subsequent tools of permanent education), primary schools must also help to develop in children attitudes which are relevant to the major democratic, human and universal values.

This involves making children fully aware of our society's fundamental principles and integrating them into their lives, namely: democratic relations, respect for human rights, equality of individuals, peoples and cultures, love of nature and protection of the environment. It also involves preparing them for living in a multicultural society, a society where leisure will play a more important part, a society that will possess new systems of information and a new means of communication.

These are not new school subjects but a new mentality, a new dimension to the teaching of subjects already taught in primary schools. They are also new aspects to school life within the educational community.

- Lastly, schools are places for drawing up an educational project. This will be done within the wider framework of a national, regional or local project and is necessitated by each school's specific identity (with its distinctive school population, its team of teachers, its own circle of parents and its particular environment).

Such project is both a product and a process requiring the involvement of all members of the educational community. The concept of project implies a roughly linear process whereby a situation is analysed, anomalies identified, objectives set, methods and means chosen and an evaluation carried out. In this process, the ability of certain schools to carry out self-analysis and self-evaluation constitutes an advantage.

The success or failure of a school's project depends in a complex way on a large number of factors (described in 3.3.1. and 3.3.2. below). For our immediate purposes, it may be noted that a school's internal system of organisation and functioning is one of the key aspects. Other such aspects include the school principal's behaviour and style of leadership as well as the nature and quality of the relationships on which the school community is based.

Schools in lowly populated areas raise special problems with regard to educational projects, as their organisational systems are completely different from those of large schools. It is true that there are a number of positive aspects to a small population, particularly the need to form heterogeneous groups (which, as already seen, call for a more differentiated approach to teaching and can contribute to children's independence).

The isolation of such schools is often, however, a definite disadvantage. For that reason, the use of new information technologies, such as video and micro-computers, while important for all schools assumes particular significance here, and many educational projects are based on it (10).

2.3. New functions for schools involve new roles for teachers

The structural transformation of schools into educational communities and the broadening of their field of educational activity have led to radical changes in the roles to be played by the various members of such communities, particularly teachers.

The traditional (and sometimes rather caricatural) image of a primary school teacher was that of a "master" whose teaching role was confined to his class work and who experienced few radical changes in the course of his career but rather adjustments to curricula, the introduction of new teaching methods and the appearance of new school materials. It must be admitted, without in any way detracting from the acknowledged quality of many primary school teachers' work, that the lack of contact between the school and its environment and between the class and the school set up a series of screens that were more or less impervious to external pressures (and hence undoubtedly provided a sense of security).

The new functions of schools call for a quite different type of teacher. Admittedly, ability to teach is still the fundamental requirement for the teaching profession, but the nature of such ability has also changed. A teacher is no longer someone who just "gives lessons"; he is rather someone who organises, observes, stimulates, assesses and fosters the various learning processes in children and is able to take remedial action whenever necessary.

Moreover, to keep abreast of the progress of educational research, interpret information received "from above", decipher the messages of society at large, translate them into operational terms and contribute actively to the drawing up, implementation and monitoring of their school's project, teachers must make considerable efforts which exceed one person's capacities. All this, combined with the conception of schools as organisations, demands of teachers new aptitudes for communication, social relations and team work.

A teacher as an isolated individual cannot be the subject or object of such change. He is too bound up in practice with a network of social relations to be able on his own to modify his attitudes and methods in any radical way. His fellow teachers may, as a group, encourage and support his modernisation efforts (but also counteract them through lethargy or fear of competition). And, indeed, support from colleagues also wishing to embark on such modernisation seems a necessary (no doubt, prior) condition for any lasting change in a teacher's behaviour.

This necessary development of the teacher's individual functions and those of the teaching team are remarkably similar to the necessary changes in the teaching process. The central point is that what must take place at micro-level in schools, in the contact between child and teacher, must also take place at intermediate level, in contacts between teachers.

Thus the different issues mentioned in 1.2. above can lead to innovation in a school only where a positive educational climate already exists. This calls for open communication between teachers and learners: a capacity for openness towards children and a highly developed aptitude for communication are qualities essential to every teacher. The same requirements can be formulated for teachers as a whole: a positive atmosphere is necessary for organisation of work and team functioning (decision-making, mutual assistance, external contacts, etc.); this calls for the same capacity for openness and communication.

In short, what teachers need to achieve in the classroom with their pupils they must also achieve with their colleagues (and with themselves).

This need for interaction and communication applies to all those in a position to provide teachers with assistance and support, such as school inspectors, whose new role is primarily to give advice, promote innovation and facilitate communication.

It is true that, given the educational structures of some states, an inspector's supervisory role must not be ignored; but in the context of innovation as presented in this report, the inspector should above all bring people together, inform and train teachers (together with teacher-trainers), evaluate the work of teachers and enhance its status, provide advice and encouragement and participate in the activities of the teaching team.

It might almost be said that this "psycho-social" view of the revision of pedagogical attitudes and behaviour enables a teacher to avoid the usual reflex of blaming any problems on his own professional or personal inability or else, as is more often the case, attributing all his failures to his colleagues or to external circumstances. A teacher (as, indeed, a pupil) will thus gradually come to realise that he belongs to a system of which he is also a product; through team work he will try to meet the new requirements of his profession, for primary schools now need staff who are inventive, versatile, creative and responsible individuals and true communication professionals. This professionalism is, moreover, an ongoing process: basic training is not sufficient in itself but needs, more than ever, to be followed up by an organised, coherent system of in-service training.

This role of active, responsible and creative teacher, is difficult to perform in practice because society is having great difficulty in giving clear instructions to the education system and its members. Society's diverse and sometime contradictory expectations account for many of the aspects of the current crisis, which is a reflection of the profound reappraisals to which a number of traditional values (sense of family, relevance of work, order, authority, youth-adult relationships, etc.) are being subjected. This poses a real problem - as well as a challenge - for teachers, which should be covered by initial as well as further training programmes (for the same reasons, considerations of quality should be a prime factor in the recruitment of teachers).

In the past 30 years our schools have undergone what is perhaps an unprecedented transformation, which has been extremely painful for both individuals and systems. It now seems, however, that subjectively and even objectively, society was not particularly grateful to schools for their efforts; indeed, it is placing even more, and sometime divergent, demands of them. Having failed to "digest" the new values confronting it and achieve a consensus on a coherent and stable set of standards, society is now reproaching schools both with disseminating those values and with not disseminating them enough. Intercultural dynamics, the response to our European society's de facto multi-ethnic and multicultural composition (see 1.1.3. above), is a striking example of this.

The traditional gap between social and educational change now seems to be growing because of the complex and volatile nature of our everyday lives. Efforts to fill or at least reduce it seem to be running into opposition; and despite individual initiatives by teachers or groups of teachers, despite attempts by organising authorities, it must be acknowledged that there is still a long way to go. Opposition is being encountered at the various organisational levels (pupils, teachers and parents), and it is affecting several aspects of teaching (objectives, curricula, learning methods, forms of assessment).

These sources of opposition need to be clearly identified so that they can be understood and eventually overcome.

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8. On all these questions we can only refer to the numerous Council of Europe reports in the field of migrants and the intercultural approach, particularly the following:

   Among the reports produced for Project No 7:

   - "Migrant culture in a changing society. Multicultural Europe by the Year 2000", Report of the STRASBOURG Colloquy (18-20 January 1983), Strasbourg, Council of Europe, DECS/EGT (83) 10, 1983.

   - "Querying the intercultural approach", Report of the BRUSSELS Seminar (21-22 September 1984), Strasbourg, Council of Europe, DECS/EGT (85) 34, 1985.

   - "The education and cultural development of migrants", Final report of Project Group No 7, Strasbourg Council of Europe, DECS/EGT (86) 6 prov. 1986.

   - M REY, "Training teachers in intercultural education?", Strasbourg, Council of Europe, 1986.

9. In addition to several case studies, two reports were produced for Project No 8 on specific or general aspects on this question:

   - K SCHLEICHER, "Co-operation between school and family (Prerequisites, implementation, problems)", Strasbourg, Council of Europe, DECS/EGT (85) 58, 1986.

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3. INNOVATION, A REPLY TO THE PRESSURES AND A TOOL FOR THE NECESSARY ADJUSTMENTS

The various activities of the project, its workshops, seminars, case studies and the contact schools have identified two main sources of pressure acting on the educational system within Europe to create change. The most important of these pressures is the rapid social and technical change taking place in our society (section 1.1 of the report). The "basic skills" which primary children must now acquire go far beyond the mere acquisition of reading, writing and computation. As a result, teachers have had to enlarge their role considerably beyond that of simply transmitting knowledge, taking into account the whole social situation of the child.

Many countries in Europe have also attempted to create a truly comprehensive system of education for all children at the secondary level and this also affects primary education. Such schools are attempting to develop the notion of the educational community, where the aim is not only to develop the pupil's knowledge and skills, but also to reflect daily reality outside the school in curricula. This has therefore challenged the traditional view of school autonomy which sought to maintain the right of those who are part of the educational system to decide what the child should be taught, regardless of the expectations of parents and other groups in society (1).

As part of that community, the more articulate parents are now demanding a greater say in their children's education, not least because these parents see the school as a necessary pathway to their children's social and economic progress. All these developments increase the pressures on teachers who, at a time of economic difficulty, have increasingly been required to demonstrate to the community that what schools offer is "value for money".

The second important change, (Chapter 1.2) concerns the increase in our knowledge of developmental change in children. We now know more, not only about cognitive aspects of children's learning, but also the ways in which they develop a sense of social responsibility, moral reasoning and the factors which motivate them to learn. As a result, we have greater understanding and expectations of the capabilities of young children, including both those with physical and mental handicaps or other social problems. The integration of these pupils into the normal school system and the pressures for change in the range and breadth of curriculum opportunities for all children in turn create a need for new innovative responses from all levels of the educational system. This requires a change in the methods of evaluation shifting the emphasis away from methods which seek to differentiate between children towards diagnostic procedures which assess the individual's progress.

3.1 The factors entering into innovation

The consequences of these changes were discussed at the 1982 meeting of European educators at Vaduz, Liechtenstein (2) where, in addition to the need to re-define the aims and the nature of the primary curriculum, European educators were urged to consider measures

to give priority to improved collaboration with parents, better provision for those children with handicaps and social cultural disadvantages, greater continuity between pre-school and primary education and improved methods of initial and in-service education. All these areas are of special interest and concern to the project but, above all, the main concern of the project has been with the attempts by all the member states to create appropriate innovation strategies which can enable these developments in primary education to be implemented successfully.

Throughout this chapter, the central ideas of interaction and negotiation should be borne in mind. If innovation is to be successful, it requires the active participation of the various protagonists and, more generally, of all those who will be affected by its implementation and consequences. Naturally, such participation should respect the various points of view and ensure mutual consideration; otherwise individuals would enter the innovation process hesitantly (at best) and would see little connection between the changes made and their own proposals.

3.1.1 A definition of innovation

Within the context of the project, innovation means the adaptation of a school system to a set of demands originating not only in the development of society but also in the expansion of our knowledge of child development. The system is used as in the French meaning of "système scolaire" to denote not just a country's educational structure but also the different levels at which it functions.

Within a programme of innovation there will be a dissemination stage, which refers to the strategies used to introduce the innovation to the clients and an implementation or "take up" stage, which concerns the process of adapting these dissemination strategies so that they are suited to the needs of different schools within the system.

Innovation, therefore, is concerned not only with policy changes but also with the detailed working out of these policies, at various administrative points; in the system in the schools and within the classroom. Some writers make a distinction between major changes in educational policy which they term, reform and the transformation that takes place as a result of this major shift in a country's educational objectives which they call innovation. Thus reorganisation to a comprehensive school system would be a reform, but the attendant changes that go with it, new patterns of class organisation, the development of the curriculum and the modification of teaching methods would all be innovations.

VANDENBERGHE however, considers that this distinction is of limited value because it leads those concerned with policy changes to neglect "the processes and methods by which the objectives are to be realised". There is often a "gap in understanding between those who create the blue-print of a reform and daily reality in the school and the classroom".

In this report the term "innovation" includes major policy initiatives as well as local modifications of existing practice. Innovation is not to be thought of as merely concerned with the introduction of new ideas, like for example the use of micro-computers in primary schools. The aim is to change the processes as well as the products of the school system. The results obtained by the educational system can remain the same even when the means are altered to increase their efficiency. Schools now face the difficult task of producing pupils who will be capable of adapting and modifying existing institutions (to meet the challenges provided by the technological and social change) while at the same time providing these children with a respect and understanding of their European identity to ensure its continuity and the preservation of our traditions of culture, democracy and legal justice.

Existing models of innovation have undergone dramatic changes during the last 20 years. In the 1960s innovation was largely seen as a management problem with a centrally directed team of innovators having responsibility for the planning and implementation of new curricula. This approach soon proved to be rather unworkable: but it led to the identification of crucial elements in the innovation process such as dissemination and implementation. The failure of many of these attempts to achieve any measurable changes in schools led to the creation of more locally-based curriculum initiatives where individual schools or groups of schools addressed themselves to particular issues of local concern. Many of these programmes have been based on the "action-research" model of innovation.

In addressing itself to the question of appropriate models for bringing about the necessary adaptation of the school system, the project, while recognising the value of both models, at the same time realised that neither of them alone is sufficient to create the necessary change in the school system. The project has nevertheless identified some of the conditions for success and a number of weaknesses which need to be overcome in future programmes of innovation, and which are listed below (3.3.1 and 3.3.2). Here we would, however, like to mention one of these conditions which we regard as essential: participants at the workshop on "The Management of Innovation in Primary Education" held in The Netherlands in 1984 (3), concluded that all levels of the educational system must "learn to function in a mixed system which combines distributive local initiatives with centralism in relation to some key principles".

The project argues for models of innovation which allow all the various levels concerned to trace out a concrete policy together. This requires a careful analysis of the different levels of participation within the system and care and attention by those responsible for the innovation, that all parties concerned by and associated with the policy changes are thoroughly involved in the key decisions.

Professor R VANDENBERGHE, in Appendix IV of this report, introduces the idea of backward mapping as a means of involving all participants in the planning stages of the innovation. The approach starts with those who will eventually implement the innovation rather than starting with the central policy makers. In this way, problems which may arise at local level can be identified in order to reduce the likelihood of major unanticipated outcomes. He also provides a detailed description of certain "rules" which should be followed to ensure effective co-operation between those "above" at the policy making level and those "below" who are required to implement the policy at school level.

3.1.2 Innovation policies and participants

It follows from what has been said in the previous section that, for innovation to be effective, there is a need for all levels within the educational service to feel a "commitment" to rather than merely an "acceptance" of any proposed changes. Mere acceptance is unlikely to change the processes implied by the innovation, whereas when all parties are committed to the change they will work actively together to persuade others to support the new programme.

Commitment then differs from acceptance in that a committed person understands and shapes the values which inform the innovation and does not simply accept the proposals because it is sometimes a condition of continued employment or advancement. It is therefore important to keep open the lines of communication between the policymakers and teachers as it is true that "what teachers do not understand they do not value and what they do not value they do not teach well" (4).

There are other participants in the innovation process besides the policy makers and teachers. Through our project activities we have discovered that the innovative process chiefly depends on five parties:

i. the central authority including those responsible for the political and individual decisions;

ii. those responsible for local educational policy and administration;

iii. those responsible for the management of schools (head teachers/advisers);

iv. teachers;

v. parents.

The degree of involvement of these parties or participants will depend on the nature of the innovation, whether it be school-based or a central government initiative. In any case the commitment of the school and the teachers is a necessary prerequisite, as it is at this level that all changes have to be implemented. But even when small-scale localised innovation takes place there is still a need for the authorities at national level to monitor it as it has been shown that, in some cases, a local innovation could become an obstacle for later changes at national level.

Localised innovations should therefore, whenever possible, be related to general themes of educational policy. Thus to give an example, a policy decision to integrate primary and nursery education would require officials at national, local and school level to work out jointly the characteristics which should be required of a successful innovation. It would not be sufficient for national officials to simply record the percentage of schools who reported that they had implemented the change, designed to achieve more than mere physical integration. To achieve this aim it is necessary to give considerable attention to the disposition of information not only to the teachers but to all the other actors who participate in the system (parents, inspectors, etc). Such information has to be disseminated within an agreed framework or set of guidelines. Establishing this framework the two most important levels would seem to be primarily the school level, including the teachers and secondly, the national policy level. One important effect arising out of this kind of collaboration is to increase debate about the nature of the processes which should result from the innovation rather than retaining the present tendency to concentrate on the expected products.

Studies have led to the establishment of a kind of general typology of innovation policies. Researchers have recently been showing great interest in the problems connected with the adaptation and implementation of innovation in schols (5). VANDENBERGHE (6) has, for example, analysed general patterns which characterise local innovation. He distinguishes between policies emphasising PLANNING where the school principal presents the teaching staff with a series of specific proposals in which his expectations are made clear, INTERACTION policies where the main emphasis is on the exchange of views between teachers and there is less direction from the principal, RISK AVOIDANCE policies where the most competent members of staff or an outside consultant are asked to help teachers who experience the geatest difficulty in implementing changes in their classroom practice and CO-OPTION strategies where the school takes less responsibility for its development but relies on an external consultant to initiate the proposed changes.

The conclusion from the Belgium studies is that classroom practice is likely to undergo greatest change when PLANNING and INTERACTION "types" of policy are used. But the more central the role played by teachers in the innovation process, the greater the need by those responsible for their employment openly to acknowledge the importance of the teachers contribution, particularly at a time when there is much public criticism of schools and teachers. Those who are responsible for policy-making need to gain a greater understanding of the stressful conditions under which today's teachers have to operate.

These aspects are strongly emphasised in the report of the contact schools (Appendix II), where there is a marked preference for the INTERACTION type of innovation policies. The report argues that the more dependence there is on the school leader, the less likely it is that staff will:

- be committed to the innovation;
- work as a team, and
- cope with possible conflicts.

To create the necessary "teamwork" the school requires a good support structure in which success is recognised and rewarded, agreements about the limitations on individual teachers freedom of action are clear and channels of communication are kept open. The role of the headteacher - and this is essential - is one of co-ordination and stimulation of individual and group effort. He will be responsible for informing parents, for regulating and acting as arbitrator in relationships between all the members of staff and, lastly, for trying to clarify any problems in the innovation process so that the critical decision-making points are identified.

3.1.3 Research, teachers and innovation

The focus of current work in innovation concerns the ways in which schools can adapt national innovations to suit their particular needs or to effect the changes dictated by specific local problems.

Case studies, the work of contact schools and the symposia are valuable sources of information about this approach and for the future will provide a corpus of useful research on this topic.

One of the main strategies for implementing change in schools makes use of the educational expert as the principle change agent. VANDENBERGHE calls this approach CO-OPTION. According to Whiteside (7), in the past this strategy often assumed that the teacher as a rational man only needed to be informed and he would change his mind. The underlying assumption is that reason determines the process of initiating innovation and that science is the best means of extending knowledge from the initial basic research to the final practical application.

In retrospect this view ignored many factors operating against this rational approach (8) such as the influence exerted by other teachers, the values which the teacher gained from previous experience and the ideologies of the occupational group. It was also argued that the research often seemed less than useful in guiding decisions on innovation because the findings often did not fit the exact circumstances surrounding the innovation. Often the results are ambiguous and cannot offer sufficient guidance for policy decisions and there can be a lengthy time lag from data collection to analysis (9).

To give an example, from the teacher's perspective, psychological research concerning childrens development has been presented in terms of the needs of individual children, whereas the teacher has to deal with individuals, but within the context of a whole class. More important, perhaps, is the changing and expanding role which is now expected of teachers leading to what has been described as the "overload" phenomenon, (although recent studies of "teacher stress" have shown that if conditions are favourable, heavy work demands can be tolerated without any accompanying decrease in learning enjoyment). The report of the contact schools (Appendix II) has much to say on this point, particularly on the need for teachers to feel that their views are respected and taken into consideration from the outset.

There is therefore increasing support for the view that further research should pay more attention to the client group (teachers, administrators) by seeking their help in formulating the research problem and developing research designs flexible enough to be amended as a result of client interventions and interests. Most importantly research reports should be aimed at the user rather than an academic audience.

Given the problems of basing innovation policies on the conclusions of large-scale research projects, many schools, including some of those covered by case studies or which formed part of the contact school network, opted for an "action-research" approach, where the school itself defined the problem and then called in a researcher to act as consultant. This method seems to guarantee the success of an innovation, as the teaching staff do all that they can to ensure that the proposed changes are put into practice.

However, there can be disadvantages. The research group can become inward-looking and resistant to outside influences. The result can even be a "closed" system which is opposed to any future changes. Some of the potential contradictions between the independence of teachers and schools when it is taken to extremes and the basic concept of egalitarianism could also be examined, as was done by the participants at the Stockholm Symposium on "The Implementation of Innovation in Primary Education at the Local Level" (10).

In adapting an "action research" strategy it would seem important to draw up a list of "research issues" which are the common concern of most schools of the member countries. The research seminars held in conjunction with the project provide a rich source of problems and issues for consideration. If schools in different member states could address the same issues in their different contexts it would provide a rich "pool of knowledge" on which to base future innovation.

3.2 The styles of innovation recorded by the project

From the case studies which have been carried out during the period of the project different styles of innovation have been identified. Most of these are variants on the traditional "centre to periphery" model of curriculum change. The traditional model, although extremely cost effective, has been criticised because of the failure to understand fully the concerns of those teachers who had to implement the innovation. It has been argued, however, in the previous section that the alternative school-focused innovation might not provide sufficient continuity between different schools (which might cause problems when a pupil transfers to a new phase of schooling). Although school-focused innovations are becoming more popular, several styles of innovation have developed which, while encouraging schools to participate in the process, do provide a consistent rationale in which these innovations take place.

Five main styles of innovation can be identified from the case study reports. It should be emphasised that the member states, which were responsible for submitting case studies, were requested to provide some "interesting examples of successful innovations". Some of the innovation programmes submitted by different countries were, therefore, very experimental and the conclusions which have been drawn from them may not therefore be completely reliable or apposite.

The first style of innovation recorded is the course development approach. Here teachers attend courses held under the auspices of the local education authorities, where the aims and methods of the desired innovation are explained. These teachers then go back to their schools and act as "change agents". Their task is to persuade their colleagues to carry out the innovation. In general, each school is in this case free to decide how it will carry out the programme within the resources provided. Several research studies, however, show that this style of innovation seldom achieves the desired changes in classroom practice, probably because the teacher returning from the course does not feel confident enough to take on the work of trainer.

A modification of this style is the training team approach which seeks to overcome this difficulty. Here a local educational authority selects a group of experienced expert teachers to help plan the in-service programme and then to run it. These teachers then follow up the programme by travelling round the schools which are taking part in the innovation to support the attempts of teachers to implement the changes in their own classrooms by diagnosing difficulties and giving additional training where necessary. This style of innovation has been used to introduce a programme designed to increase the use of micro-computers within the primary classroom in the City of Leeds (United Kingdom).

At the other extreme is the school based approach where a single school implements changes in response to problems which the educational community as a whole has identified. Such a programme is often a response to a specific need in the local community as in the Italian case study where a school attempted to improve the levels of literacy through the use of television. In this style of innovation the solution to a problem usually arises as a result of a consensus among the staff and the level of commitment to the innovation by the staff is therefore likely to be high. But the process is a very slow one and is not very suitable for large scale innovations. Some head teachers also find it difficult to cope with the democratic structure without support.

In several countries we find a style of innovation based on the cluster approach whereby a cluster (or a group) of schools identify a similar problem and then work together to solve it. Schools continue to adapt the innovation programme to meet their particular needs, but also come together from time to time to swap experiences and to support each other whenever difficulties arise. This style of innovation has considerable advantages. The schools can share resources and it is also possible for teachers with particular experience or expertise to be shared out amongst the group of schools. This style of innovation has been tried in France for example where a group of schools in deprived districts (priority education areas) have attempted to solve the problem of pupils who "drop out" of the system.

The fifth style of innovation which has been identified from the case studies uses a "consultancy approach". Here, unlike the "training team approach" the consultant is not associated with a particular in-service programme with its own set of objectives and procedures. Schools attempt, with the assistance of the consultant, to clarify issues, arrive at solutions and then evaluate them. The consultant usually has knowledge of evaluation procedures and, perhaps, some training in social psychology which allows him to help teachers cope with the stresses that can arise within a school when some staff resist the proposed changes.

The above-mentioned Stockholm Symposium enabled us to determine some of the advantages of this consultancy approach. If the consultant is skilled and knows how to meet teachers' needs, he can help to bridge the perception gap, explain the theories and values on which practice is based and set a coherent debate going between participants. But his role is very demanding and means that he can only look after a few schools at a time. It is still a moot point whether he must remain completely "neutral" vis-à-vis the school, which would prevent school inspectors, for example, playing this role (10).

In summary, therefore, we can identify five main styles of innovation. Two of these, course development and team training are generally used when education authorities have predetermined the innovation and a set of clearly defined objectives. School based discussion and consultancy styles of innovation generally involve a "problem solving approach". Between these styles there is increasing use of the cluster approach to innovation where groups of schools work collaboratively together. Such styles can involve either an objectives or problem-solving approach or can be concerned with processes and implementation. In the examples of innovation studied, 33% were course-based with no follow-up (at least within the framework studied) other than unstructured school discussions. 25% of the innovations studied used the cluster approach, 20% involved consultancy, 12% training teams and 20% concerned school-based discussion.

Notable by its absence is a style of innovation called the cascade approach where training is focused on key staff who become responsible for the training of others who then in turn train more staff. This style may be used regionally or locally or within an institution itself. In the United Kingdom for example, it is one of the main ways in which local authorities are attempting to overcome weaknesses of school based approaches which, while increasing the commitment of staff generally, require considerable resources.

As discussed above, school-based innovation is often very slow to spread beyond the individual school because the teachers involved generally feel that the solution to their particular problem is not capable of being adapted to other institutions. The cascade approach provides groups of consultants who can act as links between different schools and identify common features in the aims and processes of innovation.

In an attempt to evaluate these five styles of innovation, the authors of each case study were asked to identify the various strengths and weaknesses of each approach.

The most common difficulty reported was insufficient resources. 90% of the authors listed this as the prime reason why the innovation failed to develop according to plan. Against this finding there was evidence that certain schools were more imaginative in the use of their existing resources to support the innovation. Some schools made use of students from training colleges or involved parents. The main resource limitation was the teacher's time. In most of the innovations studied no time was allowed so that teachers could reflect critically on their practice during the innovation period. Similarly, there was not enough time in the preliminary phase when situations are analysed and plans worked out, especially given that these tasks do not normally form part of teachers' duties. Most school authorities seem to regard the teacher's "out of class time" (vacations and after school hours) as the appropriate time for this reflection to take place. Teachers, on the other hand, regard this time as their own and tend to believe that if the innovation is sufficiently important then the authority should provide free time during working hours for discussion and reflection. There was evidence from a number of the case studies that if a school authority did make time available for reflection during school hours then the staff concerned were more likely to work during the vacation and after school hours on matters affecting the innovation.

In spite of the increasing emphasis on keeping open "channels of communication" between those responsible for national policy and those responsible for carrying out that policy at local and school level, few authors made any specific reference to ways of making this two-way communication more effective. In only 20% of the innovations reported did any channel of communication between the different levels appear to have been formally established through case studies. Perhaps more importantly, there appeared, on many occasions, to be a breakdown in communication within the school itself. 75% of the case study authors reported that there were problems in human relationships between the staff within the institutions and between the school staff and the local authorities. This breakdown in human relationships seemed to be the prime cause for the limited success of many of the innovations. Faced with the possibility of conflict among the staff, many heads sought to direct the energies of those staff who were committed to change into "safer" forms of innovation such as a new reading scheme or a fund raising project.

Within a wider context, there were no apparent relationships between the styles of innovation and the countries in which the innovation was carried out. Thus the hypothesis that countries with more centralised educational systems might adopt the "top down" approach to the objectives and processes of innovation was not found to be true in practice. There were just as many localised "problem-solving" school-based innovations in such countries.

In conclusion, styles of innovation are being adapted in an attempt to overcome the weaknesses of existing approaches. There is evidence that these modified forms are generally more effective and result in a stronger commitment on the part of some teachers to change. There must be no concealing of the fact that difficulties still remain, particularly in relation to the resource implications and the conflicts which arise whenever the participants to an innovation do not share a common set of values and beliefs. We do not suggest that the problem of resources is simply one of quantity; experience shows that quality is often an element. Nevertheless, we believe that, in almost all cases, it is possible to find more efficient ways of using existing resources. On this issue and in the resolution of conflict, there would seem to be a need to look closely at the training provision provided for teachers, not only to help them to understand better the processes of innovation (why and how), but also to enable them to manage that process more effectively.

3.3 The implementation of innovation: favourable factors and obstacles

3.3.1 Factors aiding innovation identified by the project

It is therefore clear that adequate resources are a key factor in the successful implementation of an innovation. We wished to obtain more details on this question and, in order to do so, we sent contact schools a questionnaire where they were to specify whether the initiative was a local or national one and whether the innovation involved the whole school or a single class. Responses to the questionnaire clarified this point and pointed to other factors which generally assisted change.

Irrespective of the scale and level (local or national) of the innovation, there was general agreement among the respondents from the contact schools that the following factors were important in helping to implement innovation successfully. They are presented here in order of the frequency in which they were cited by teachers:

a. administrative support from school inspectors, head teachers or advisers to help deal with bureaucratic structures and provide resources;

b. adequate resources: chiefly additional finance to provide books and materials;

c. time for teachers to meet and discuss issues to work together and reflect on practice;

d. support of parents: the provision of parental in-service to introduce them to the innovation and involve them in its successful implementation;

e. additional help particularly for pupils with learning difficulties;

f. professional trainers - researcher consultants to provide evidence of need for innovation and help supply expertise.

Among the factors mentioned by most respondents to the questionnaire was the need for external support, first because an expert's knowledge could save valuable time by directing the teacher's attention to appropriate sources of information and training and second because the consultant could help resolve differences between staff. In his new functions, as set out in 2.3 above, the inspector has, in many respects, a fundamental role to play. Parental support was also seen as a vitally important ingredient to successful innovation, chiefly because without it, valuable time was lost in dealing with criticisms and providing reassurance to anxious parents. The most common strategy adopted for securing parental support was to persuade parents to become involved in the innovation itself by helping out within the school or by establishing committees for raising additional resources in support of the innovation.

A most important factor in the contact schools and case studies was the goodwill and commitment of the staff.

Again there was general agreement that innovations which involved the whole staff were to be preferred to ones in which a single initiative was taken by a class teacher, as genuine co-operation when working together was a valued ingredient of any innovation and many respondents to the questionnaire cite envy and suspicion from fellow teachers (particularly more senior colleagues) as reasons why an innovation was only partially successful.

3.3.2 Obstacles to innovation identified in the project

In the approaches we have just defined it is necessary for all paticipants to have a clear understanding of the roles of their colleagues in the process and an awareness of the subtleties of negotiation. This is particularly important in primary education where some teachers may feel that the problems of adapting to social change are of more immediate concern to secondary colleagues. We suspect that most educators who initiate and play prominent parts in innovation have had no training in all the questions which such an initiative entails, especially aspects of management. When any system is disturbed it usually acts in such a way so as to restore itself to the original equilibrium position. The management of innovation is not simply about establishing the important points of decision making and communicating clearly with the decision makers. Those responsible for promoting the innovation need to have some understanding of the processes of innovation so that they can anticipate the likely reaction from different parts of the educational system.

Case studies show that one of the most important obstacles is the resistance to change of individuals, particularly those who are responsible for implementation within the classroom. Sometimes, it is argued that the conservative views of the community make it difficult to carry out the proposed changes, but within any group of parents or teachers there will always be some whose support for a change for the better can be used to counteract more negative reactions. There are also internal forces within each individual which are very powerful and cause us to resist change. These differences in feelings between those who support the innovation and those who do not can sometimes give rise to conflict within the school.

Considerable understanding of these processes is therefore required by head teachers, advisers and inspectors if they are to understand them better and control them so as to be able to help the staff to overcome such problems by bringing these feelings and relationships out into the open. Head teachers in particular have to learn how to handle such situations with skill and sensitivity so that a much deeper sense of co-operation and purpose among the teaching team (and between teachers and other participants) can be achieved through the resolution of such conflicts. From research we can be very clear about the prime imortance of the head teacher in this process, provided they are convinced of its worth. It is therefore necessary to recognise the role of local school management as a prerequisite of change and, as a consequence, there is a need to put considerable emphasis upon the in-service training of head teachers.

The replies to the questionnaire sent to contact schools provide some further information about the obstacles encountered by innovation in schools. Against the order reflects the frequency with which any particular obstacle was mentioned in the replies.

a. Lack of time to reflect about innovation: most teachers were too tired by the end of a school day to be able to think critically.

b. Lack of adequate resources: space to work in, materials to work with and lack of administrative support.

c. Reluctance of some teachers to accept the proposed changes: many respondents said that innovation only worked if they could share ideas with colleagues. All hated working in isolation.

d. Lack of shared decision making structures: teachers resisted innovation when "ordered" to change.

e. Failure of head to secure co-operation of parents and persuade bureaucracy to give additional money for books, materials.

f. Stress of teaching.

g. Lack of knowledge.

g. Failure of national or local policymakers to take account of schools' special circumstances.

It must be stressed that this resistance to innovation is not always perceived in the same way by circles outside the school. For example, the "lack of resources" can sometimes merely be a pretext for not introducing changes, as we all know that the hallmark of successful innovation is the ability of the school in question to adjust to difficult situations and find imaginative solutions to them.

Although the case studies and replies to the questionnaires sent to contact schools cover only a small sample of primary school teachers in the member states, it is striking to note that the leitmotivs of of conflict, commitment and collaboration that emerge from these reports are echoed in the other recent studies carried out both in Europe and in the United States (11). Moreover, they were a recurrent theme in the deliberations of participants at two seminars organised by the project on the role of the head teacher (12) and of the teacher (13) in innovation in primary schools. While the participants clearly realised the need to study these concepts in more depth and were able to outline favourable conditions for establishing collaboration in schools, there is nevertheless still a need to spell out in greater detail the exact strategies applied by schools which innovated successfully.

3.4 Implications for initial and in-service teacher training

At the centre of all innovation is the school and the teachers within it. Yet, in spite of a considerable amount of research into teacher effectiveness and international studies which show that patterns of teaching within different countries are similar, there is no entirely consistent approach to the training of new entrants into the profession, no commonly agreed order of priorities in training programmes and very little agreement about criteria to be used for judging effective teaching. Student teachers are confronted with a range of suggested practices which often conflict with those they see operating in the classroom. This gulf between "theory" and "practice" has created a profession which is largely suspicious of educational innovation when it originates from outside the school. The present system of training is also largely inefficient. Research everywhere has demonstrated that student teachers tend to model their practice on the classrooms where they receive their training and also on their memories of childhood experiences as pupils, 15 or 20 years ago. It is therefore extremely ironic that new teachers are therefore learning practices from experienced teachers at the same time that these experienced teachers are undergoing retraining in order to change this practice.

Many countries are now trying to solve these problems. For example, in the type of programme called IT-INSET (initial and in-service training combined) the classroom is viewed as a "curriculum laboratory" where teachers research into their own practice. To do this, they need to be trained in skills of observation. Within this curriculum laboratory the student teacher works as an assistant to the experienced teacher (who is himself receiving in-service training), sometimes acting out the role of observer and sometimes teaching alongside the classroom teacher. For part of the time college tutors also work alongside the teacher and the student in the classroom thus refreshing their own experience. Such programmes incorporate an "action research" problem-solving approach to teacher training rather than the strategy where the experienced teacher simply passes on "teaching tips" to the student.

In the same manner, in-service training for teachers rather than concentrating solely on the mechanics of implementation, for example in the use of the microcomputer or of a new approach to teaching reading, should place more emphasis on helping teachers to cope with the problems that will almost certainly arise once the innovation is introduced into the classroom, such training should concentrate on helping teachers develop the evaluative skills to analyse the situation, and monitor the effects of change.

Many excellent teachers exist operating at the level of what has been termed "craft knowledge" who intuitively select appropriate strategies without any real understanding of why the chosen approach is successful. The aim of all training must be to increase teachers' ability to analyse and ponder so that "craft knowledge" becomes "reflective knowledge", whereby teachers can clearly explain the theory behind the practices they adopt. Teaching, like other stressful activities, suffers from a "perception gap" between the participants' and the observers' account of the action. The teacher, as participant, tends to see the external constraints as the main factors preventing innovation and change, whereas the external observer tends to see the teacher's own weaknesses as the main obstacle to change.

Bridging this perception gap requires great skill on the part of the consultant and others who take on management roles in the innovation process. For a teacher to shift their perspective away from external constraints to an examination of their own personal limitations and weaknesses is an extremely difficult process. It requires a great deal of openness on the part of the teacher and a willingness to trust colleagues. In the process values and hidden assumptions about the educational process will be challenged and this can give rise to tensions among staff. As mentioned earlier, nearly all the authors of case studies reported such conflict as did the respondents to the questionnaire which was sent to teachers in the contact schools.

Although there has been an increase in management courses for head teachers and others responsible for innovation many tend to be functional in their approach and avoid discussion of human relationship problems. Some schools obtain the agreement of staff to innovation by writing guidelines for practice which are so vague and general that every teacher can subscribe to them without experiencing any internal crisis. If follows, therefore, that two things are necessary in order to promote a real change within the primary schools of Europe.

The first is a far greater recognition by those in authority of the problems with which head teachers and their staff are likely to be faced when attempting to innovate. While parental participation is to be welcomed and, may we reiterate, is necessary, there is a need to assure head teachers that they will be supported against the more "cautious" elements among the parents and teachers who resist change. Moreover, better training for head teachers, so that they can respond creatively to opposition and manage tensions within the staff, is an urgent necessity.

The second condition is that educational authorities should watch carefully for heads who appear to have promoted and implemented an innovation successfully, and use them in a "cascade approach" to train their colleagues. This second point concerns the fact that there is, at the moment, too little communication between those responsible for teacher training in the member states and too little evaluation of the effect of such training on the innovation. Of the many important recommendations to emerge from the 1985 Donaueschingen Teachers' Seminar (13) the need for heads of teacher training institutions from member states to meet and discuss the full range of these problems is an urgent necessity.

The findings presented in this chapter are in general agreement with those from other research which has been undertaken during the last few years. We can end in no better way than by endorsing the conclusions of researchers in the United States that "whether we looked at local problem solving, research transformed into practice, action research or networking (ie cascade approaches), we were drawn to teachers, their world, and their work as starting points for improving schools" (14).

Huberman and Miles (5) endorse this view that school improvement is, at long last, a "reachable objective" and that "we are beginning to understand the conditions for reaching it". In the last 20 years we have moved from attempts to mandate schools to change policies to a situation where perhaps too much emphasis was placed on small-scale localised initiatives. Now the challenge is to use the impetus of nationally agreed aims concerning the primary school to stimulate change in schools which take into account "the organisational relationships of the school, the climate and the environment of the school and the transactions between teachers and learners" (14). The project has given us many insights into the ways to proceed in order to meet this challenge.

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4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

In conclusion, we would like to answer the questions raised at the very beginning of the report about the links between school and society. Through our research, we have come to regard innovation as a means of gearing the school system to a set of demands posed by society, as primary schools now bear the heavy responsibility of forming pupils who are capable of adapting and reshaping existing institutions (in order to brave the challenges of social and technological upheavals), while at the same time understanding and respecting their European identity (so as to perpetuate our cultural, democratic and legal traditions).

4.1.1 Some constraints apply to the whole of the social field and are therefore external to educational systems. As we did not wish to deal with all of them, we selected those which seem to exert the greatest influence on schools.

- The general demographic context seems to be a source of anxiety everywhere, as in some countries there is a marked downward trend while in others population expansion is slowing down (although it also appears to facilitate reforms and reorganisation).

- The slackening or halting of economic growth is having a direct depressive effect on educational expenditure by the community or by families. No education system is coming out of the crisis unscathed.

- In a society whose composition is changing (as a result of large-scale intermingling of populations) the explosive increase in means of information and communication is raising questions about the new role of traditional systems for transmitting and acquiring knowledge, such as schools.

- Lastly, changes affecting families' internal relationships and economic functions are naturally having a strong influence on children at primary school.

To these constraints there may be added, for example, competitiveness - a reflection of our society - whose effects are apparent in many aspects of child education. The unavoidable resultant adjustments in primary schools must be the product of a long-term, coherent educational policy with clearly defined priorities, rather than a mere by-product of policies in other fields. Only with this kind of policy will schools be able to react energetically to the ever-changing needs of our society, while preserving the values upon which European culture is founded.

These "external pressures" are combining with others within education systems themselves. We feel that most of these "internal pressures" or new demands stem from a better knowledge of the processes of child development and knowledge acquisition (and were not structural or organisational). At all event, they call for teaching methods meeting the needs of each and every pupil and which make allowances for psychological, physical, cultural and social differences.

- Over and above academic disputes, clarification of the mechanisms whereby a child interacts with the perceptive, motor, emotional, communicative and cognitive elements of its social and ecological environment represents a radical departure in identifying the context of learning processes.

- It is essential that a child clearly understands the "rules" of school in order to do his "job" as a pupil as well as possible. Individual learning capacity, which is linked to the mechanisms of cultural transmission, is also connected with the ideas and behaviour of parents, teachers and friends.

- Learning is the result of successful communication between all members of the group-class. Success means creating a propitious climate, on the basis of a genuine didactic contract and respecting different tempos of living and development.

- Formative assessment is an integral part of this process, as the pupil is made clearly aware of the objectives to be achieved and the path being followed, as well as being kept informed about his progress.

4.1.2 These various pressures and demands give rise to substantial changes and new expectations to which schools have already begun to respond.

- Successful teaching is one of the general aims of education systems. It is rooted in the selfsame ideals of equality and solidarity and is closely linked with the idea that any child (and, by extension, any individual through further training) can attain a specific level of proficiency through the (difficult) differentiation of teaching techniques and approaches.

- Differentiation in education means allowing each person to learn at his own speed, by the methods which work best for him and to reach the same goals by following his own route. From this point of view, introducing systematic differentiation in education may by a key principle.

- This differentiation lies at the heart of several educational projects which vary according to the places and people involved, but which share some common objectives and methods. They emphasise the concern for continuity in the child's education - continuity between different educational structures, but also between the influence of the family and the school.

- The very organisational system of schools is evolving. Their gradual conversion into full-scale educational communities interacting with their partners at the same level, with the vertical structure of which they form part and with their environment cannot be reversed. The responsibilities of each of the partners (pupils, parents, teachers, principals, organising authorities, etc) are real and clearly identified. These educational communities include external assistances in the shape of specialists and inspectors, whose action affects both classroom work and the organisation and running of the school.

- The teacher necessarily finds that this role alters in this new context. This change, like any other, arouses some apprehension; but the teacher is central to the school's process of adjustment and suitable training and support are needed to help him/her in this transformation of his/her function.

In terms of the structure of initial training, it is undeniable that the present systems could be significantly improved. In many cases, present teacher training methods place too much emphasis on an immediate, albeit essential objective namely, to enable new teachers to survive their initial encounters (confrontations) in the classroom and do not equip teachers adequately for coping with a teaching career in an evolving technological society.

- Continuity between initial and further training is at present being discussed and studied with a view to ensuring that the methods used respond to the continual challenge of classroom teaching amid the changing demands of society as well as advances in our knowledge of child development.

4.1.3 Innovation is indeed the best means of effecting this adjustment. While forming the core of current attempts to improve the quality and efficiency of schools it is itself undergoing a radical mutation; any thoughts that a single model might be a general panacea are precluded, because innovation may vary widely in conception, implementation and dissemination.

The links between a system, whatever it may be, and each of its components are not, of course, governed by simple laws. School systems are no exception to this general rule - indeed, far from it - and it would be just as wrong to believe that the action of an education system as a whole was the sum of the actions of individual schools as it would be to assume that the action of each school was faithful reflection of the system's actions.

It was no doubt because they disregarded or underestimated this general sociological law that many innovations have proved unsuccessful. Innovation policy effectively demands the revolutionising of modes of operation at all levels of the education system. Innovation in schools, a complex process which takes time, necessitates the active participation of all involved in the major decisions affecting the school. Throughout our studies, as diverse as they were, one idea of central importance to us, namely that of involvement emerged with particular sharpness (this does not of course exclude the influence of other factors which must be identified).

- Successful innovation requires "joint" involvement of the various decision-making and management levels of school systems. An innovation merely imposed "from above" has no more chance of succeeding than one consisting solely of initiatives "from below". It is the combined action of the various levels of responsibility that provides the framework for success.

- Against this background of pressures, expectations and changing structures, successful innovation also entails the involvement of the various participants in the educational process. Among these, the teacher naturally occupies a key position. But if, as is frequently the case, attention is confined to the two extremes, ie ministerial decision-makers and teachers in their classrooms, no account will be taken of other participants who, depending on whether or not they are involved, can facilitate or inhibit the process of innovation. We are thinking of the various authorities (arranged in hierarchies varying from one country to another) which are responsible for management, educational support, inspection and training but also of parents, local organising authorities and, of course, the pupils.

Here, too, success will depend on the "joint" involvement of all those concerned. Communication is crucial for spreading the word about innovative ideas and strategies; it cannot be restricted to messages, but must also focus attention on experience and direct participation.

- Lastly, successful innovation depends on clearly identified objectives and judicious involvement in terms of action. Whatever their style and scope, innovation processes are closely bound up with the concept of "project", ie the planning of action. Before the right answers can be given, it is necessary to ask the proper questions; in other words, innovation cannot be a means of adapting the system unless the process initiated is a response to a question that has itself been formulated through prior analysis of the situation.

The time required for innovation necessarily varies from one project to another according to the duration and pace of each project and the child's speed of development.

Accordingly, a rigorous approach is needed for achieving the objectives pursued. It should again be emphasised that the preliminary analysis of the situation must incorporate both the macro-scale (which is the scope of this report) and the micro-scale (that of the school and the classroom) and also that this approach must at all costs be continuously accompanied by appropriate forms of evaluation.

4.2 Recommendations

Involvement, cross and joint action by the various levels of responsibility, training, evaluation - here, in a nutshell, are a few key words and key concepts which, we hope, will be used as a kind of lens for reading the recommendations drawn up by the members of Project Group No. 8 at the end of their deliberations.

4.2.1 On the aims of primary education

Primary education is a vital stage in that it lays sound foundations for what will be a continuous life-long process of education. This is why the aims of this stage are of fundamental importance to the development of every child.

A number of objectives for primary education in Europe were defined at the Vaduz Conference, where the preliminary outline for Project No. 8 was sketched.

Having considered these aims in the light of recent research, the studies of Project No. 8 itself and the relevant declarations by the Committee of Ministers (1), we recommend that the following objectives for primary education should form an explicit common charter with which each member state would comply according to the characteristics of its own education system.

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(1) - Declaration on "Intolerance, a threat to democracy" (14 May 1981).

- Recommendation No. R (85) 7 of the Committee of Ministers to member states on teaching and learning about human rights in schools (14 May 1985).

- Recommendation No. R (84) 18 of the Committee of Ministers to member states on the training of teachers in education for intercultural understanding, notably in the context of migration (27 September 1984).

Primary education should:

- extend beyond the basic skills of reading, writing and arithmetic, even though these are still important;
- give children a wider perception of their immediate and more distant cultural and physical environment;
- stimulate the general development of children according to their full physical and intellectual potential, foster their aesthetic awareness and provide them with opportunities for artistic expression and creativity;
- enable children to acquire and exercise the democratic values of participation, responsibility, respect for the rights and opinions of others, and the development of understanding and solidarity;
- take into account the personal and cultural characteristics of each child and seek to develop his or her personality, with special attention to moral, social and ethical questions;
- stimulate the development of values, interests, knowledge, ideas, life skills, know-how and learning techniques and attitudes, thus preparing children for the demands of secondary education, work, the family and the community.

4.2.2 On the organisation of primary education

4.2.2.1 The efforts made everywhere to guarantee the success of all children must be staunchly pursued and expanded. A pre-condition of attempts to secure greater equality in basic knowledge (which has wider implications than equal opportunities) is that special attention be paid to the characteristics of each child, to their knowledge and to gaps in it. Attainment of this objective presupposes:

- genuine differentiation of teaching programmes (differentiation of the content of education, differentiation according to the level and nature of learning objectives, differentiation of teaching methods and differentiation in the time needed to acquire knowledge);
- and also integration in the ordinary education system of children with special needs (which could otherwise cause them to be relegated to fringes of society). By inducing a genuine form of educational behaviour, integration at school paves the way for social integration.

4.2.2.2 The qualitative improvement of education, and especially the launching and supporting of innovative schemes, demands time, staff and equipment. These resources can be found in some places by reusing, at least to some extent, the means that become available as a result of the falling birth rate. Elsewhere they will have to be the subject of special provision.

4.2.2.3 Continuity between pre-school and primary education should be improved in order to ensure that teaching practises support and promote the continuous development of the child. The methods used by nursery school teachers should take the various aspects of the child's develoment into account in order to stimulate and strengthen such development. All in all, the learning processes and teaching methods used should result in the creation of an uninterrupted process for children aged from 3-4 to 11-12 within the same basic school (same staff and same training).

4.2.2.4 Similarly, continuity between primary and the beginning of secondary education must be improved for the same reasons (ie the child's development and consistent teaching approaches and methods). This recommendation must be implemented whatever model of secondary education is adopted.

4.2.2.5 Interactive learning calls for the development among pupils (and between teachers and pupils) of forms of listening, communication, assistance and co-operation so that progress can be made towards a school organised in such a way that differentiation is no longer an exception but a rule. It would be extremely valuable to experiment with pupil-grouping arrangements of a flexible kind as opposed to the immutable whole-class group where the chief criterion is the age or level of pupils.

4.2.3 On curricula

4.2.3.1 As a result of society's growing expectations, primary schools are having to cope with an ever-increasing range of curriculum demands, some of which (eg education in human rights, peace, the environment and the European dimension) are fully in line with the aims and objectives of primary education as defined in Chapter 2 and reiterated in 4.2.1. Consequently, rather than being treated as separate subjects, these fundamental questions should be incorporated in the general curriculum.

Confronted with these new requirements, teachers must nevertheless continue to teach the traditional disciplines, which are still just as important, such as reading, writing, mathematics, arts, science and music. A dynamic balance should therefore be struck in teaching curricula between new contents and basic skills and between general development and specific learning. Thinking on this subject should, of course, be carried out in every member state; but opportunities should also be provided for conducting it in a co-ordinated manner among the various states (see 4.2.5 and 4.2.6 below).

4.2.3.2 The workshops and seminars held as part of Project No. 8 sought to adjust the balance of curricula in this way, so that they would reflect the present and future needs of society. Governments chose themes for these activities according to their own priorities, with the result that not all the various components of school curricula were examined in detail. Thus, the reports of the workshops and seminars dwell on certain subjects, such as computer studies and mathematics, science and technology, or reading.

One of the main recommendations to come out of these workshops and seminars was that innovation in new areas (science and technology, human sciences, etc) should not just seek to give children new knowledge and skills but also take account of new modes of interaction between children and teachers: co-operation, creative thinking, problem-solving, etc. Naturally, this type of interaction should apply to the whole curriculum, not merely to its "new" parts.

4.2.3.3 Environmental education: one of the major tasks of primary education is to stimulate children's awareness of their immediate surroundings. In this way, they will gradually acquire knowledge and skills giving them a genuine and active understanding of their environment; and indifference will thus give way to awareness of the responsible role they must play in order to preserve and improve the quality of their environment.

For this purpose, the local environment should be utilised as a set of educational resources through which children can be nurtured on the treasures of their region, heritage, language, culture, etc.

4.2.3.4 Disciplines which allow certain skills to be acquired, viz problem-solving, reasoning strategies, information selection and so on.

Mathematics: In primary schools this subject ought to be treated as an experience providing the pupil with the means of seeing, discussing and representing real-life situations in mathematical terms and thus of solving problems and gradually acquiring self-confidence. Such an attitude will form a sound basis for mathematical development in subsequent studies.

Science and technology: These subjects should be designed as a single unit in primary schools and should be perceived as such. Many skills (communicating, interpreting data, planning, experimenting, testing results, assessing or changing basic premises etc) are common to both fields. All these activities should develop a child's understanding of concepts connected with materials, energy, structure, control, safety, etc.

Information technologies: It is essential that children should learn to read images and even produce them. It is also important for them to be initiated in computer science and thus develop a range of skills enabling them to collect data, formulate problems and formalise ideas - in other words, make active use of technological resources to realise their personal projects.

Teachers must also be better versed in the effective and critical use of computers as means of demonstration and teaching.

Media: At the interface of the media and the new information technologies, the "knowledge explosion" starkly raises the problem of the gap between information available outside and that available inside the school environment, as well as the question of such information. Every country should therefore give some priority to finding a way of including media studies in its education system, either as a new subject in its own right or as an additional dimension to existing subjects and disciplines.

Human sciences: In addition to acquiring skills for solving rational and material problems, a child should be given the means of tackling and solving emotional and interpersonal problems. Part of the primary school curriculum should be aimed at developing such qualities.

4.2.3.5 Reading and writing: The spread of illiteracy is casting doubt on the effectiveness of fundamental methods of teaching children to read and write. Individualised or differentiated teaching is one of the reliable remedies available. But teachers and parents must also be convinced that learning to read and write is a process which continues throughout school life and cannot be confined to the first year or two of primary education.

4.2.3.6 Second language: It is most important to include learning of a language other than the mother tongue in primary education, firstly because this is a way of facilitating exchanges and communication, and secondly because it gives an insight into peoples and events in other parts of Europe or the world.

This teaching of a second language should not be conceived of as an isolated element of the curriculum but should contribute to:

- widening children's perception of the lifestyles and customs of other peoples;
- promoting tolerance of others and respect for their otherness through comparisons with other countries;
- reducing selfishness and prejudice, both towards foreigners and towards one's own compatriots.

The introduction of a second language can thus extend children's powers of communication as well as enhance their moral, cultural and social development.

4.2.4 Implementation of innovation

4.2.4.1 The method of operation of the various levels of responsibility and decision-making must allow the emergence of local school projects (which fit into a wider regional or national framework). Innovation stands no chance of success unless the will of the organising authorities is allied with commitment on the part of those at the chalk face.

These schemes will be devised as tentative answers to the situation in each school as defined in the analysis made by all concerned.

4.2.4.2 Special resources (time, manpower and equipment) must be set aside for the innovation process. The absence or inadequacy of these resources is indeed felt and pinpointed everywhere as a powerful curb to and a factor preventing change. While it is true that the ulterior concern for extension militates against any undue allocation of additional resources, it is equally true that innovation in itself represents a workload for participants and the back-up system which must be taken into account.

4.2.5 On the implications of the innovation process for various participants

4.2.5.1 Teachers

If schools are to introduce and develop innovation, primary school teachers must have time set aside for planning their work and assessing their pupils' results. In all countries (with some variations) the need is felt for a better definition of primary school teachers' duties. In many cases, these include developing relations with parents and explaining of the improvements which the innovation process is expected to bring. There is a genuine increase in the workload of teachers, but these new demands and adequate mastery of the relevant skills in the new information technologies are also opportunities which ought to be seized in order to enhance the teacher's role.

- By the same token, the planning, implementation and monitoring of innovation call for teamwork between the teachers, which naturally necessitates a new method of handling relationships and conflicts and also the setting aside of time for this specific purpose. The innovations carried out in schools in heavily populated urban areas, but also those aimed at helping small schools in country areas, demonstrate how much more effective the process is when teachers have the possibility of working with their colleagues within the school, or even with those from other schools. All this needs time and must be included in the definition of duties.

- Teachers must be able to have a real say in the preparation and implementation of the school's project. Such responsibility naturally takes the form of teaching duties, but it also includes the freedom to use the resources and means allocated to the project. For example, in several member states, the organising authorities subsidise only those teams which present a genuine innovation project. These teachers and schools feel encouraged because their ideas and efforts thus receive tangible recognition in the shape of resources (however modest) and because the schools can decide on their own how to use them.

This form of encouragement to innovation and independence is not however incompatible with a policy which would grant sufficient resources according to pupils' needs.

4.2.5.2 Head teachers, inspectors and sources of aid and support

- Head teachers have a key role to play in the whole process, because they can co-ordinate action in the school and can act as intermediaries between teachers, parents and the authorities. As the innovation process is dictated by the aims and strategy of the scheme, it is also essential that sources of aid and support be involved from the outset (inspectors, teaching counsellors and outside consultants).

For the same reasons, provision should be made from the very beginning for evaluation (and the concomitant training) as an integral part of the process. This is one of the conditions required for successful innovation and subsequent extensions.

- Organising authorities everywhere must devote meticulous attention to the recruitment and training (both initial and in service) of inspectors and head teachers, as their style of leadership is vital. In the future, leadership must allow for interaction with schoolteachers and the other members of the educational community. Initial and in-service training must enable head teachers to give positive, effective leadership.

- In view of the importance of their role as intermediaries, inspectors, head teachers and principals of teacher-training colleges must be able to meet to trade experiences, continue their own training and compare methods of implementing innovations. The member states ought to consider setting up an ambitious system of exchanges of members of these professions so that co-ordinated progress can be made towards finding responses to shared problems.

4.2.5.3 Parents

- It is absolutely vital for a child's progress and the realisation of his potential that genuine continuity should exist between the education given at school and that received at home: this implies the organisation and strengthening of co-operation between both sides on the basis of joint responsibility and the close involvement of parents in decision-taking. This co-operation must be feasible not only at a general level between parents' associations and organising authorities but also, and above all, at the level of the school, where it must be closely related to the progress of each child at school.

- This continuity, or at least the absence of a dividing line between home and school, is all the more essential for children whose families are separated from school by a wide cultural or social divide. As for all other children, the school has duty to ensure their success, but in view of the difficulties of getting through to these families, parents' associations must be closely involved with this responsibility as they can play an essential role here as go-betweens.

- The principle of joint responsibility and, within this framework, clarification of the respective roles of families and schools require the holding of frequent meetings between both sides. The head teacher and/or the teachers must generally take the initiative for convening these meetings and it would be very useful if they could even turn into joint information and training sessions for parents and teachers.

These sessions might provide an opportunity to discuss the new roles of schools (intercultural teaching, research findings, conversion into an educational community, etc) and the introduction or implementation of a given innovation. They could also lead to the devising and implementation of joint projects by the school and parents (involvement of parents in teaching projects, joint running of workshops, etc), and in parents being really informed about their rights and duties and developing an awareness of them.

4.2.5.4 Educational research

- Classwork, educational research and the machinery of decision-making must be more closely linked everywhere and complement each other. Generally speaking, research must pertain more to questions of interest to those concerned (teachers and administrators) so that they participate in the definition of the problems studied and in the setting-up of research structures which are sufficiently flexible to be modified according to the activities and interests of the target group. Above all, care must be taken to ensure that research reports are addressed more to working teachers than to educational theorists.

With this in mind and in the light of all the challenges facing primary schools, we think that priority should be given to a few broad areas:

- the development of research into learning phases and periods, especially those linked to the children's biorhythms;

- the continuation of research into the family, social and teaching mechanisms which hinder or promote "success at school". This entails in particular taking into account the recent findings of cognitivist and social psychology, of studies of relational systems and biological and social rhythms, of the sociology of the "job" as a pupil and of school culture, in order to check new hypotheses about the relevant differentiation of the school qua organisation;

- research which links the putting together and assessment of curricula to the processes of learning and teaching and to the direct management of innovation in order to determine with greater accuracy at different levels the variables entering into decisions which influence the effectiveness of the school system and the quality of learning;

- the provision of the most up-to-date forms of and tools for evaluating primary education. We think that priority should be given to formative assessment which meets the requirements of interactive, dynamic learning;

- the continuation of research into the processes of learning and teaching in the context of innovation so as to decide with teachers exactly "what ought to be done";

- educational research which is firmly committed to studying the school community (as a complex social organisation) instead of merely studying (as is still too often done) separate cases and individual pupil behaviour;

- lastly, the setting up of multidisciplinary research teams comprising research workers who normally concentrate on educational sciences and research workers who are investigating the development mechanisms of children (as biological and social beings).

4.2.5.5 Teacher training

The teacher has an absolutely central role to play in the planning and implementation of an innovation process, which demands considerable commitment on his or her part. Special care must therefore be taken in the recruitment of new teachers and in the quality of the (initial and in-service) training they are given. Those responsible for these training programmes should jointly draw up some strategies aimed at guiding new recruits through the complexities of the teaching profession; such programmes should, of course, be based on sound theoretical foundations.

- As innovation is mainly a matter of personal commitment and aptitude for teamwork, initial training programmes for primary school teachers must in future:

- generally include project teaching and teamwork, which means that emphasis must be placed on character training and the ability to work with others as a member of a group of adults;

- more specifically, include instruction in innovation methods (analysis of needs, setting of targets and assessment). It would be very useful if the contents and programmes of this training were to be widely publicised and circulated within member states and also between them. The various bodies responsible for disseminating information in Europe such as, for example, Eudised (Council of Europe) and Eurydice (European Communities) ought to give this activity some thought.

- As regards in-service training, it is essential that teams engaged in an innovation process should be provided with training that would enable them to carry out their project successfully. In this connection, training schemes designed for teachers in the same school (or same group of schools) should be fostered. It is also important that the teams have some influence over the methods, content and even the organisation of this training and that, in particular, they should be able to call in outside consultants, if they so wish.

- More generally speaking, European co-operation in the initial and in-service training of primary school teachers should be decisively expanded. It is clearly necessary, if the aims adopted at Vaduz (point 4.2.1 of the recommendations) are to be achieved, that an effort be made to harmonise the levels and contents of future primary school teachers' initial training among member states.

A working party comprising experts and senior officials could be set up to this end. It would be responsible for drafting recommendations concerning training programmes but also for setting up a network of consultants, a sort of pool of staff and resources whose assistance could be sought, when needed, by training colleges and organising authorities.

It would also be desirable to devise a number of common training modules as this would greatly facilitate international exchanges of trainee teachers (and thereby harmonise points of view and improve mutual understanding).

4.2.6 Follow-up to Project No. 8

The members of Project Group No. 8, supported in their opinions by the conclusions of the Nice Final Conference (December 1987), believe - not in any particular "veteran"-like spirit - that special attention should be paid to the following up of their work by the various authorities, both within each member state and at Council of Europe level.

4.2.6.1 The first recommendation emerged from the Final Conference, and the Project Group's members welcome it. Everyone agreed that it was of the utmost importance for each of the participants in the Conference to ensure optimum dissemination of the Project's results within his or her own sphere of influence and responsibility.

4.2.6.2 Within individual member states, follow up to the project and the dissemination of its results might take at least two forms:

It is highly desirable and indeed strongly recommended, that workshops, seminars or symposia should be held in each member state on the initiative of national authorities in order to publicise the Project's studies and deliberations among all those affected by innovation in primary education. Although such meetings should primarily be aimed at national audiences, it would be very useful if they were also open to representatives of other countries so as to give them a European dimension in keeping with the Project itself.

It is the duty, as well as in the interests of each member state to take all measures which, in the context of its own political and educational system, will enable the Project's results to be widely circulated to:

- the written and audiovisual press, both specialised and general;
- teachers, parents and even children, as the pre-eminent protagonists and partners in innovation.

A special effort of communication seems necessary here. Although written "memoranda" and "reports" are still indispensable, they are no longer sufficient. Some novel suggestions (audio and video documents, strip cartoons, etc) were made by the working groups at the Final Conference, and these deserve close and enthusiastic examination.

4.2.6.3 A number of recommendations are directed at the Council of Europe. These may be divided into four main groups:

From a general point of view, it is strongly advocated that the Council for Cultural Co-operation (CDCC) keep up the interest it has shown in primary education through the Project and continue to pay close attention to the education of young children in the 5-12 year age group. The CDCC is also strongly urged to allocate more of its budgetary resources to research in the field of primary education.

In addition to and in conjunction with the dissemination and following up of activities carried out within each member state (see 4.2.6.2 above), the Council of Europe should:

- encourage and participate in the production of various types of technical and or general material (catalogues, videos, microfiches etc) on the sequels and follow-up to the Project;

- ensure, or at least take part in, the widespread circulation and distribution of documents and teaching material related to the Project;

- help to organise national meetings for dissemination/follow-up purposes, particularly as far as member states in southern Europe are concerned. This could be done in the form of the defrayal of the travel expenses of the Project Group's members invited to such meetings, the provision of simultaneous interpretation at some of the meetings and the rendering of assistance in connection with the preparation of summary reports in languages other than English and French;

- organise, in the year following the publication of the Project's final report, an international seminar designed to take stock of the implementation of the Project's findings and recommendations and advise the CDCC on its future action.

In order to maintain, and even reinforce, the momentum created by the network of contact schools, it would be very useful if the Council of Euroe were to initiate another network, or a pilot group, of 20 or so schools which could test and develop some of the Project's proposals. This new network, which would be co-ordinated with the present contact schools system (without necessarily reproducing all its features), would be monitored and supported by a group of experts, researchers and teachers, and would initiate an internal flow of information (half-yearly bulletin, exchange of documents, etc).

It was agreed at the Final Conference that it would be desirable for Project No. 8 to be followed by one or more other projects which, without necessarily being restricted to primary education, would relate to:

- one or more of the topics broached at Vaduz but not dealt with by Project No. 8, eg "the organisation of the school day or year", "primary schools and the mass media" or "possible components of a social, moral and cultural education";

- points raised in the course of the Project No. 8 studies and warranting special investigations by virtue of their interest.

Thus, a new project should address several carefully chosen questions, such as the following:

- In respect of curricula (see points 4.2.3.1 to 4.2.3.6 above: How far and in what ways should curricula try to ensure that children acquire an understanding of their environment and a concern for its protection? What emphasis should be placed on the teaching of science and technology? How should moral, social, ethical and personal education be co-ordinated with intercultural education and the teaching of human rights?

- In respect of "key roles" (see point 4.2.5.2 above): What attitudes are adopted and how much attention is paid to the recruitment and training of head teachers, principals of teacher-training colleges, inspectors, etc in the various member states?

- In respect of teacher training (see point 4.2.5.5 above): Future initiatives regarding teacher training might be co-ordinated with follow-up to the Ministerial Conference of May 1987 (Helsinki). The Council of Europe should initiate a study to clarify the implications of Project No. 8's recommendations, particularly as regards the interaction of initial and in-service training and the accommodation of innovation methodology (analysis of needs, setting of targets, implementation of projects, assessment, etc) in training.

- In respect of the implementation of innovation (see point 4.2.4 above: It would be desirable to pursue in greater detail the study of the various factors promoting or inhibiting innovation so as to identify the principal variables that determine whether this or that innovation is successful and, if it is successful, examine ways of extending it to other schools.

Moreover, consideration might be given to the new technologies (especially data processing) and the media, particularly with regard to their role in the development of cognitive processes. The development of skills in the socio-relational and socio-emotional field might also deserve thorough consideration. The two could also be combined.

In such a project, a careful investigation could be conducted into the complex problem of assessment - assessment of the various aspects of school systems, assessment of the knowledge acquired by pupils and assessment of the skills and abilities which interactive forms of learning should inculcate in them.

APPENDIX I

"GENERAL DESCRIPTION OF THE CONTEXT OF THE PROJECT AND ITS WORKING METHODS"

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The first appendix to the Final Report on Project No 8 comprises a brief history of the Project and a description of the development of the initial objectives into the major themes of "Innovation in primary education". There follows a general outline of the working methods used in the Project and a brief description of the problems relating to the dissemination of information.

This appendix also includes a list of activities - in chronological order - carried out between 1981 and 1987.

General description of the context of the Project and its working methods

1. Introduction

"Innovation in primary education" is the theme of a five year project in which 23 member States (1) of the Council for Cultural Co-operation (CDCC) (2) of the Council of Europe have taken part.

This project, which concerns the education of children in the 5-6 and 11-12 age groups, started in 1982 and ended in 1987. It responded to the need felt in the member States to concentrate on a period of compulsory schooling which had never been fully examined in the framework of intergovernmental organisation and which was - and still is - the subject of review (and even reform) in the majority of the countries in Western Europe.

In taking the decision to devote its 40th Session (Strasbourg, 23-26 June 1981) to a primary education project, the CDCC was filling a gap in its activities in the field of education of children and adolescents. The first school project of the CDCC (1974-79) dealt with

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(1) Austria, Belgium, Cyprus, Denmark, France, Federal Republic of Germany, Greece, Holy See, Iceland, Ireland, Italy, Liechtenstein, Luxembourg, Malta, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom. San Marino and Yugoslavia became the 24th and 25th member State of the CDCC when they acceded to the European Cultural Convention on 13 February 1986 and 7 October 1987, respectively.

(2) The CDCC is the steering committee responsible for cultural and educational activities in the Council of Europe.

the pre-school education and early development of children. This project was followed, from 1978 to 1982, by a further project known as "Preparation for life", which concerned young people in the 14-19 age group. Recognition of the vital importance of the first years of compulsory schooling was one of the results in the "Preparation for life" project.

2. Main characteristics

2.1. Prior consultations

In October 1981, the Secretariat of the CDCC asked all the non-governmental organisations with consultative status in the Council of Europe for their opinion on the new project. For the purposes of this consultation a note was prepared by the CDCC (DECS/EGT (81) 70 of 16 September 1981).

Twenty-five organisations interested in education replied and an analysis of these replies by the Secretariat (DECS/EGT (81) 106) was submitted to a meeting of non-governmental organisations held in the Council of Europe on 28 January 1982.

The representatives of 31 NGOs attended this meeting devoted to the new project (Project No 8). The participants recommended inter alia that the project:

1. should be based on the child;

2. should take into account the role of primary education (DECS/EGT (82) 27 of 22 February 1982).

During 1982, the Secretariat was in contact with the Secretariats of other international organisations and was able to obtain confirmation that the new project would not duplicate projects in hand elsewhere.

The third aspect of the preparatory phase of the consultations concerned the delegates of the member States, who were invited to a conference on "Primary education in Western Europe: objectives, problems and trends". This conference took place in Vaduz (Liechtenstein) from 9-12 November 1982 and its recommendations and conclusions appear in document (DECS/EGT (83) 68 of 18 July 1983.

Inter alia, the participants:

- confirmed that the decision of the CDCC to devote its new project to primary education was both opportune and important;

- submitted a list of seven questions to form the main basis of the new project;

- drew up a list of 13 points linked to these questions which would be the subjct of meetings of studies during the course of the project.

Before the Liechtenstein Conference, the member States were requested to submit national reports on primary education. Twenty national reports were published by the CDCC. They contain information on the organisation of the educational system for primary education, the objectives, structure, use of time, teacher training, problems and innovations in hand or in preparation.

2.2. Suggestions arising from the Vaduz Conference

2.2.1. The new project was to adopt a long range approach and study the role, objectives, content and organisation of primary education in the member States over the next 20 years.

2.2.2. Suggestions were made for the study of:

- the rates of development and learning of children;
- the new role of primary education and the implications for the curriculum and organisation of schools;
- the influence of the economic and demographic situation, socio-cultural trends and progress in technology in primary education.

2.2.3. The conclusions of the Project were to be presented in a report drafted in an agreeable style and avoiding technical jargon, so as to facilitate publication in book form and a wide distribution in the member States.

2.3. The initial programme of the Project

In order to develop the programme of the Project, the Project Group - a group of experts set by by the CDCC to administer the Project on its behalf - based itself on the suggestions made at the Liechtenstein Conference.

In considering these suggestions, the Project Group was aware that it would be impossible, within the time allotted to the Project, to study every theme in detail and that it would perhaps be necessary to combine or omit certain points.

Thus, 1983, the first year of the Project, was considered as a year for reflection, and the Project Group examined the initial programme of the Project.

An analysis of national reports and comments and the discussions held by the Project Group showed that the countries felt the need to institute innovations in primary education and had therefore adopted, or at least prepared corresponding guidelines. The problem for all the countries seemed to be the methods of implementing innovations.

The desire for change derives mainly from a better understanding of the cultural, technical and economic changes which have recently taken place in our societies and which have had effects on primary education.

The Project Group responsible for the execution of the project decided at its second meeting (Malta, 27-30 March 1984) to base its activities on innovation in primary education and its implementation. The project now consisted of two aspects:

I. General considerations on innovation (subdivided into four: objectives, diversity of needs, implementation and evaluation);

II. A study of innovative elements (new technology for instance);

2.4. Management of the project

2.4.1. The project was managed on behalf of the CDCC by a Project Group responsible for:

I. submitting proposals concerning the annual programme of the project;

II. supervising the implementation of activities carried out in the framework of the project;

III. reviewing and analysing the ideas and information submitted during the project;

IV. supervising the preparation of the final report, which would constitute the main result of the project:

V. submitting proposals concerning the distribution of the results of the Project.

2.4.2. Composition of the Project Group

The Project Group was composed of:

I. an expert from each of the member States of the CDCC;

II. five consultants.

The national experts were senior officials:

I. with responsibilities at national or regional level in the field of primary education;

II. actively concerned with innovation or reform of primary education;

III. in a position to provide the Project Group and the Secretariat with information on the new ideas in primary education in their countries, and to assist in the organisation of visits and meetings.

2.4.3. The meetings of the Project Group

The Project Group held one plenary meeting per year. The first meeting took place in Strasbourg from 20-22 April 1983. The report of this meeting can be found in document DECS/EGT (83) 42 of 31 May 1983.

In order to enable the members of the Project Group to obtain information on the spot on new developments in primary education during contacts with senior officials, national committees, pupils, teachers and parents, three meetings were organised in the member countries.

The second meeting took place in Valletta (Malta) from 27-30 March 1984 (report in DECS/EGT (84) 58 of 27 April 1984).

The third meeting took place in Lisbon (Portugal) from 11-15 November 1985 (report in document DECS/EGT (85) 75 of 17 December 1985).

The fourth meeting took place in Nicosia (Cyprus) from 21-24 October 1986 (report in document DECS/EGT (86) 70 of 12 November 1986).

The fifth meeting took place in Strasbourg from 3-5 March 1987 (report in document DECS/EGT (87) 8 of 15 April 1987).

The sixth and final meeting began at the same time as the closing Conference, Nice (France), 30 November - 2 December 1987 - and continued until 4 December (see section 3 below) (report in doc ... of ...; summary account of Conference in doc ... of ...).

2.4.4. The Project Group set up a Bureau - from January 1984 known as the Planning Group of the Project Group. The Planning Group consisted of 5 members chosen to ensure a balanced geographical representation. The member States were divided into 5 groups:

Denmark
Finland
Iceland
Norway
Sweden

Belgium
France
Ireland
Luxembourg
Netherlands
United Kingdom

Austria
Federal Republic of Germany
Liechtenstein
Switzerland

Cyprus
Greece
Malta
Turkey

Holy See
Italy
Portugal
Spain

Each group had one representative, except that of the Chairman which had two.

The members of the Planning Group and the five consultants mentioned above in paragraph 2.4.2. met once a year to:

I. prepare the annual plenary meeting of the Project Group;

II. advise the Secretariat on the implementation of the project.

The Planning Group met four times in Strasbourg:

- on 3 and 4 November 1983 (report in document DECS/EGT (83) of 17 November 1983);
  Composition: Netherlands (Chair), Italy, France, Sweden, Portugal, Austria.

- from 6 to 8 November 1984 (report in document DECS/EGT (84) 100 of 3 December 1984)
  Composition: Belgium (Chair), Sweden, Spain, Malta, Austria.

- on 27 and 28 May 1986 (report in document DECS/EGT (86) Misc 41 of 17 June 1986)
  Composition: Belgium (Chair), Denmark, Portugal, Malta, Austria, United Kingdom.

2.5. Methods of work used in the Project

Apart from the management of the Project by the Project Group and the Planning Group, there was also a range of activities which aimed at a better knowledge of innovations in primary education and their implementations.

These activities, divided into four fields, were so important that special appendices were assigned to them in the Final Report.

2.5.1. Contact Schools (cf. Appendix II)

The Planning Group (at its first meeting on 3 and 4 November 1983) took the view that a network of "contact schools" could add an important dimension to the Project on the practical level.

The Project Group (at its second meeting from 27-30 March 1984) reaffirmed the general objectives of the network, namely:

i. to bring together schools involved in types of innovation corresponding to the aims of Project No 8;
ii. to enable the Project to take into account the results of these innovation experiences;
iii. to "feed into" the Project the reactions of teachers, educators and parents to the ideas and proposals resulting from the more theoretical and conceptual work of the Project.

The Project Group subsequently approved the 12 establishments which had been proposed as "contact schools". These schools met the criteria laid down by the Planning Group.

The following countries had representatives on the restricted group on contact schools: Cyprus, Iceland, Italy, Luxembourg, Liechtenstein (from 1986) and Switzerland.

2.5.2. Case studies (cf. Appendix III)

With a view to obtaining information based on as many experiences of innovation as possible, the Project Group considered that such experiences should be the subject of case studies and study visits.

A working group responsible for case studies and study visits met on 29 and 30 May 1984 in Strasbourg. This working group was composed of five consultants (cf. paragraph 2.4.2.) and the Chairman of the Project Group.

The restricted group examined a list of case studies submitted by the national authorities from the point of view of innovation and identified three main areas of primary education affected by these innovation experiences: the community sphere (local, regional and national), the school sphere and the sphere of the child.

Altogether, the Planning Group commissioned 16 case studies.

Given the considerable financial implications of the study visits, the Planning Group decided (in November 1984) that study visits should be limited to innovations of major scope and combined with other important meetings, such as symposia or research workshops.

2.5.3. Symposia, conferences and seminars (cf. Appendix IV)

A conference is an ad-hoc meeting held at national level to take stock of the activities of the Council of Europe on a given subject.

A symposium is a meeting organised at national level to discuss a number of ideas and proposals concerning the implementation of an important aspect of a project.

The host country decided on the theme of the symposium or the conference in collaboration with the Secretariat of the CDCC. The Secretariat requested the Heads of Delegation of the Council for Cultural Co-operation to appoint delegates. In most cases, each member State was invited to sent two delegates, one of whom should be a senior official:

i. with responsibilities at national level in the field of primary education;

ii. actively concerned with innovation or reform in the field of primary education;

iii. fully acquainted with the work done in the framework of Project Group No 8 on primary education.

The second delegate was required:

i. to be an active participant in the work of Project No 8 of the CDCC;

ii. to have direct experience of innovation policies in primary schools.

The two delegates should have a good working knowledge of one of the working languages of the symposium or the conference. The working languages of these meetings were the two official languages of the Council of Europe, English and French.

Simultaneous interpretation was always provided.

The Council of Europe reimbursed the travel expenses of one delegate from each of the following member States: Cyprus, Greece, Iceland, Malta, Portugal, Spain and Turkey. The other member States were required to defray the travel expenses of their delegate or delegates.

Apart from delegates from member States, there were the following participants:

- observers from non-member States;
- observers from other international organisations;
- observers from international non-governmental organisations enjoying consultative status with the Council of Europe;
- national observers from the host country.

The programmes of conferences and symposia usually comprised:

- statements and discussions in plenary sitting;
- discussions within working groups;
- visits to schools.

Each working group elected its own chairman and rapporteur. The reports of the groups consisted of a brief account of the main ideas discussed by the group in question. These reports were presented in plenary sitting (the closing sitting) for information and not for adoption.

A conference or a symposium normally lasted four days. After the meeting, the general rapporteur prepared a report which was sent to the participants and to the educational authorities of the member States. These reports contained a summary of the debates and the text adopted at the final meeting.

Seminars were held for the benefit of teachers (as well as heads of educational establishments and inspectors) and they brought together a maximum of 40 educators from member States. More often than not, there was only one working language and the programmes comprised lectures and discussions in plenary sittings as well as group work.

Each participant was obliged to submit a report to the Secretariat of the Council of Europe.

Donaueschingen in the Federal Republic of Germany was the preferred venue for seminars relating to Project Group No 8 of the CDCC.

2.5.4.Research workshops (cf. Appendix V)

These meetings were held for the benefit of persons interested in educational research.

Not only were the research workshops intended to establish a catalogue of research under way in the member States on a given theme of Project No 8, but the participants also attempted to draw conclusions likely to be of practical benefit to educational policies and their implementation. There was also a concern to work towards closer co-operation with schools, with a view to achieving a better understanding of the structural obstacles to innovation in primary education.

The ultimate aim in every case was the improvement of the quality of education.

The methods used were statements and group work.

The Project Group appointed one of its members to participate in the proceedings of each research workshop.

2.5.5. The non-governmental organisations also contributed to Project No 8 by organising congresses and conferences. The Council of Europe supported them with grants for meetings organised in the framework of the theme: "Innovation in primary education".

2.5.6. Apart from meetings, mention should also be made of the contribution of the authors of various studies dealing with problems of primary education in general and innovation in primary education in particular.

These studies, the publication of which was subsidised by the Council of Europe, are referred to in the bibliography at Appendix VI.

3. Chronological progress of the project

1981

- 40th Session of the CDCC (23-26 June): decision to devote a school project, to run from 1983 to 1986, to primary education (5-6 to 11-12 age group).

- 28 January

  Strasbourg: meeting of non-governmental organisations (report in DECS/EGT (82) 27 of 22 February 1982).

- 9-12 November

  Vaduz (Liechtenstein): Conference on "Primary Education in Western Europe: objectives, problems and trends" (report in DECS/EGT (83) 64 of 18 July 1983)

1983

- 20-22 April

  Strasbourg: first meeting of the Project Group (report in DECS/EGT (83) 42 of 31 May 1983)

- 2-7 May

  Varese (Italy): Teachers' seminar on the theme "Europe in primary schools" (report in DECS/EGT (83) 87 of 26 January 1984)

- 2-7 May

  Donaueschingen (Federal Republic of Germany): 19th European Teachers' Seminar of the Council of Europe on "The teaching of history in primary schools: objectives, methods and problems" (report in DECS/EGT (84) 1 of 10 April 1984)

- 20-25 June

  Donaueschingen: 20th European Teachers' Seminar of the Council of Europe on "The training of teachers of gypsy children" (report in DECS/EGT (83) 63 of 10 October 1983)

- 24-29 July

  Hvanneyri (Iceland): Conference on primary education in sparsely populated regions (organised by Interskola) (report in DECS/EGT (83) 90 of 15 December 1983)

- 1-4 August

  Valletta (Malta): Congress of the International Federation of Teachers' Associations on the theme "For a renovation of the primary school" (Resolution in DECS/EGT (83) Misc 45, 14 September 1983)

- 21-25 August

  Reykjavik (Iceland): Teachers' Seminar on the education and social development of young children (report in DECS/EGT (84) 103 of 30 November 1984)

- 6-12 August

  Norway: Workshop organised to improve communication between parents and teachers
  (DECS/EGT (83) 51 of 2 August 1983); report "Teacher-Parent-Collaboration" Statens Laererkurs - Royal Ministry of Cultural and Scientific Affairs - English only

- 3 and 4 October

  Strasbourg: Meeting of the Joint Working Party (Steering Committee for Urban Policies and Architectural Heritage + CDCC) on "Urban environmental education in the primary school"
  (report in CDUP 83-72 of 14 October 1983)

- 10-15 October

  Donaueschingen: 21st Teachers' Seminar of the Council of Europe on "Education for development in primary schools"
  (report in DECS/EGT (84) 40 of 22 June 1984)

- 17-21 October

  Han-sur-Lesse (Belgium): Symposium on "Innovation in primary education in Western Europe"
  (report in DECS/EGT (84) 24 of 27 January 1984)

- 3 and 4 November

  Strasbourg: 1st meeting of the Bureau (Planning Group)
  (report in DECS/EGT (83) 86 of 17 November 1983)

- 1-4 December

  Neusiedl-am-See (Austria): Third All-European Conference of Directors of Educational Research Institutions on research devoted to primary education (5-10 age group)
  (report in DECS/EGT (84) Misc 7 of 23 January 1984)

1984

- 27-30 March

  Valletta (Malta): Second meeting of the Project Group
  (report in DECS/EGT (84) 58 of 27 April 1984)

- 1-4 May

  Puidoux-Chexbres (Switzerland): Teaching research workshop on the renewal of mathematics teaching in the primary school
  (report in DECS/EGT (84) 78 of 6 July 1984)

- 6-8 May

  Athens (Greece): Congress organised by the World Confederation of Organisations of the Teaching Profession (WCOTP) on "The role of teachers and their organisations in educational innovation"

- 29-30 May

  Strasbourg: First restricted meeting of Working Party No 2 on case studies and study visits
  (report in DECS/EGT (84) 64 of 18 June 1984)

- 5-7 June

  Strasbourg: First meeting of the Working Party on the Contact Schools system
  (report in DECS/EGT (84) 72 of 26 June 1984)

- 25-30 June

  Donaueschingen: 24th European Teachers' Seminar of the Council of Europe on "Urban environmental education in primary schools" (report in DECS/EGT (84) 42 of 3 December 1984)

- 24-27 July

  Lisbon (Portugal): Congress of the International Federation of Teachers' Associations (FIAI) on "Children in general difficulties in the primary school"
  (Resolution in DECS/EGT (84) Misc 74 of 27 September 1984)

- 3-6 September

  Edinburgh: Research workshop on "Science and microcomputers in the primary school"
  (Information document in DECS/EGT (84) Misc 34 of 26 April 1984; DECS/Rech (84) 58 of 8 October 1984)

- 8-12 October

  Noordwijk (Netherlands): Symposium on "The management of innovation in primary education"
  (report in DECS/EGT (85) 16 of 4 June 1985)

- 18-22 October

  Ayr (Scotland): Conference of the World Conference of Organisations of the Teaching Profession (WCOTP) on "The role of teachers and their organisations in educational innovation"
  (Recommendation in DECS/EGT (85) Misc 4 of 10 January 1985)

- 6-8 November

  Strasbourg: 2nd meeting of the Planning Group
  (report in DECS/EGT (84) 100 of 3 December 1984)

1985

- 23-25 April

  Falkenberg (Sweden): Second meeting of the working party on the Contact School Plan
  (report in DECS/EGT (85) 23 of 9 May 1985)

- 29 April - 3 May

  Gorebridge (Scotland): Programme of CDCC - Cours National NCL bursaries for teachers on "Primary science development project - the way ahead"
  (report in DECS/EGT (85) 77 of 26 November 1985)

- 20-25 May

  Donaueschingen: 27th Council of Europe Teachers' Seminar on "The role of the teacher in innovation"
  (report in DECS/EGT (85) 45 of 24 November 1985)

- 21-24 May

  Bilbao (Spain): Committee for the development of sport: Seminar on sport and physical education in the primary school (conclusions in DE-PE-85-2 rev. of 13 September 1985)

- 29 and 30 May

  Strasbourg: Third meeting of the Planning Group (report in DECS/EGT (85) 36 of 17 July 1986)

- 24-27 September

  Madrid (Spain): Teaching research workshop on the development of the child in primary schools (information note in DECS/Rech (85) 4 of 26 February 1985; General report in DECS/Rech (85) 61 rev of 18 November 1985; Secretariat report in DECS/Rech (85) 60 of 23 October 1985)

- 7-11 October

  Rome (Italy): Symposium on "Children with special needs in the primary school"
  (report in DECS/EGT (86) 16 of 19 February 1986)

- 7-12 October

  Donaueschingen: 29th Teachers' Seminar of the Council of Europe on "Geography for international understanding in primary schools" (report in DECS/EGT (85) 47 of 4 February 1986)

- 11-14 November

  Lisbon (Portugal): Third meeting of the Project Group (report in DECS/EGT (85) 75 of 17 December 1985)

1986

- 1 and 2 February

  Strasbourg: European Colloquy of associations of parents and pupils (organised by the Federation de Parents d'Eleves de l'Enseignement Public) on the theme "Parent participation and equal opportunities"

- 3 and 4 February

  Strasbourg: 1st meeting of the Drafting Group (report in DECS/EGT (86) Misc 18 of 28 February 1986)

- 11-14 March

  Lyngby (Denmark): Symposium on "The new technologies and the primary school"
  (report in DECS/EGT (87) 48 of 29 January 1987)

- 27 and 28 May

  Strasbourg: fourth meeting of the Planning Group (report in DECS/EGT (86) Misc 41 of 17 June 1986)

- 29 and 30 May

  Strasbourg: second meeting of the Drafting Group (report in DECS/EGT (86) Misc 54 of 28 August 1986)

- 23-27 June

  Donaueschingen: Council of Europe's Teachers' Seminars on "The role of the headteacher in innovation in primary schools" (report in DECS/EGT (86) 72 of 16 February 1987)

- 28 July - 1 August

  Cambridge (United Kingdom): Symposium on "Science and technology in the primary school" (report in DECS/EGT (86) 59 of 18 September 1986)

- 23 September

  Strasbourg: Sectoral meeting (non-governmental organisations) (report in DECS/EGT (86) 64 of 8 October 1986)

- 13-16 October

  Vienna (Austria): Conference on the theme "Continuity in education" (report in ...)

- 20-22 October

  Nicosia (Cyprus): Third meeting of the Working Group on the Contact School Plan (report in DECS/EGT (86) 68 of 10 November 1986)

- 21 October

  Nicosia (Cyprus): Joint meeting of Project Group and above Working Group (report in DECS/EGT (86) 69 of 12 November 1986)

- 21-23 October

  Nicosia (Cyprus): Fourth meeting of the Project Group (report in DECS/EGT (86) 70 of 12 November 1986)

- 9-12 December

  Tilburg (Netherlands): Research workshop on "The learning of reading and writing" (report in DECS/EGT (87) Misc 19 of 1 April 1987)

  DECS/Rech (86) 80-81 of 20 January and 6 January 1987 reading and writing skills in primary education - Swets and Zeitlingen B.V. Amsterdam/Lisse - 1987.

1987

- 21 and 22 January

  Strasbourg: Third meeting of the Drafting Group (report in DECS/EGT (87) Misc 4 of 2 February 1987)

- 2 March

  Strasbourg: Fourth meeting of the Working Group on the Contact School Plan (report in DECS/EGT (87) 9 of 8 April 1987)

- 3-5 March

  Strasbourg: Fifth meeting of the Project Group
  (report in DECS/EGT (87) 8 of 15 April 1987)

- 27-30 April

  Stockholm (Sweden): Symposium on "The implementation of innovation in primary education at the local level"
  (report in DECS/EGT (87) 33 of 10 September 1987)

- 2-5 June

  Eindhoven (Netherlands): Education research workshop on "Interactive learning and new technologies"
  (report in DECS/Rech (87) 30 of 17 June 1987)

- 12-15 July

  Delphi (Greece): Congress of the International Federation of Teachers Associations on "The social status of teachers"
  (report in FIAI - IFTA Informations, No. 43, December 1987)

- 19-24 October

  Rome (Italy): International Seminar on "Training and Education in Europe"

- 30 November - 2 December

  Nice (France): Final Conference
  (report in CDCC (88) 14 - DECS/EGT (87) 43 of 12 April 1988)

- 30 November - 4 December

  Nice (France): Sixth meeting of the Project Group
  (report in DECS/EGT (87) 42 of 5 January 1988)

4. The distribution of information and follow-up to the Project

Since the beginning of Project No 8, the Secretariat and the Project Group have emphasised the importance of the distribution of information in the most concise and legible form possible. Special efforts should be made to bring the conclusions to the notice of the decision makers and practitioners in the member States by the following means:

I. a specialised mailing list;

II. an annotated bibliography of the studies and reports drawn up for the project;

III. the organisation of information seminars;

IV. contacts with journalists specialising in education;

V. co-operation with non-governmental organisations.

The Secretariat has many times emphasised the need to experiment with new forms of presentation for the distribution of information (more attractive publications or audio-visual equipment, etc).

At the second meeting of the Project Group (Malta, March 1984), one of the consultants proposed the setting up of a pool of research information for the Project Group and the countries to which the Secretariat sends material. Unfortunately the practical ways and means of setting up this information pool were not studied as indeed was the case for several of the means mentioned above.

The Project Group has therefore concentrated all its efforts in the matter of information on the final report.

. There is, however, a publication in English which constitutes a comparative compendium of national reports on primary education, initially submitted by the member States for the Vaduz Conference.

It was decided that the Final Conference would otherwise be devoted to detailed discussion of the Project Group's final report and possibly the drafting of amendments to the recommendations. Apart from representatives of the CDCC's member governments, a few non-member States, the Council of Europe and the international governmental institutions, the non-governmental organisations would also attend and might thus make a major contribution to Project No 8.

A broad range of persons concerned with primary education would also have an opportunity of expressing their views on the dissemination of findings and on the follow-up to the project.

Working parties would consider these issues on the basis of proposals formulated by the Project Group.

The discussions would be based on the following propositions:

- The prime responsibility rests with the national authorities. Dissemination of the final report (in full, summarised, in separate parts, the appendices) is a matter for the member States.

  It is highly recommended that either the final report or a publication based on it be translated into all the languages of the CDCC's member States.

  The results must be presented in an attractive publication (see publication produced by the Kornesios contact school in Cyprus).

- Depending on the specific situations in individual member States, various approaches to dissemination might be adopted, aiming at different target groups:

  local or regional authorities
  parents' associations
  teachers' associations
  teacher training institutes
  researchers
  central authorities

- How can details of the various initiatives be circulated among the member States? The Council of Europe's CDCC might act as the clearing house.

  Method: publication of a newsletter in English and French on 1 January and 1 July every year. This would contain information on dissemination of the project's results, on follow-up (ie the progress of innovations launched within the framework of Project No 8), on new projects and teaching aids (including audio-visual materials).

- An account of the Final Conference and, above all, the conclusions and recommendations should be published in "FORUM" by the Council of Europe. The CDCC could prepare a survey of the action taken at national level to implement the recommendations.

- Action by governments to promote the holding of workshops on innovation, involving, for example, the contact schools and schools which have launched innovations within the framework of Project No 8, as well as schools which have participated in large-scale innovation in the countries concerned.

  In this connection, the holding of research seminars/workshops, similar to, but separate from the four annual seminars in Donaueschingen.

- The need to encourage frequent contacts between the schools which have taken part in innovational schemes under Project No 8, involving a maximum number of teachers.

- Recycling as a travelling exhibition of the exhibition mounted at the Final Conference on the Contact School Plan and the schools which have contributed to Projet No 8.

APPENDIX II

School Improvement from Within

Abridged Version

of a text bearing the same title and issued as a separate publication
(DECS/EGT (87) 34)

by

Dook KOPMELS

THE CONTACT SCHOOL PLAN

Introduction

> "What do you like doing best in the world, Pooh?"
> "Well," said Pooh, "what I like best ... "and then he had to stop and think. Because although eating honey was a very good thing to do, there was a moment just before you began to eat it which was better than when you were, but he didn't know what it was called.
>
> (A A Milne: The House at Pooh Corner)

Even though Pooh is an expert at eating honey, and although eating honey is one of his daily chores, still, to clearly pinpoint the essential aspects of it is very difficult indeed.

Although school improvement is our daily occupation, to exactly formulate its essential aspects proved a difficult task for the participants of the Contact School Plan. Representatives of twelve improvement projects, regarded by their governments as successful, gathered together and exchanged information in order to find out whether from the collected experiences, obtained in various national circumstances, any general conclusions could be drawn and considered for special attention. Differences in the systems of education, in national policies of innovation, differences in language, all added to the difficulty of discussing things together and made learning from each other more exacting. However, the obvious differences prevented us from contenting ourselves with some superficial similarities which were hardly there. Anyway, so although these international differences may have hampered us initially, in the long run they led us, through our mutual contacts, to penetrate to a number of propositions which were essential to many of the contact schools. That it was at all possible to find some conformity is due to one particular common factor: all twelve projects are concerned with school improvement which is supported by, dependent on, and carried out by the teachers themselves. Apart from the question as to where the original initiative to the project was taken, or how much external influence came to bear upon the progress of change in the school, the teachers, whether as a team or as an influential group, regard themselves as those who do it, who carry out the changes, who make the necessary decisions, and who, where they find it appropriate, appeal for external assistance.

It is this type of innovation about which this Appendix provides information: school improvement from within.

Chapter I gives a brief impression of the Contact School Plan. Chapter 2 explains the five zones in a school to which one pays attention in school improvement. In Chapters 3, 4, 5, 6 and 7 the characteristics of the contact schools, for each zone, are described. Chapter 8 provides a survey of the presence of thes characteristics in the separate schools and Chapter 9 elaborates on the results of the research on the manner in which school improvement was brought about. Some concluding remarks, finally, are to be found in Chapter 10. With this a period of intensive activity, lasting more than a year, comes to its close. In it a qualitative analysis of the schools' progress reports, the discussions among the representatives of the schools, which, at least for the contact schools themselves, resulted in a solid framework for thinking and communication about school improvement from within.

1. The Contact School Plan

The Contact School Plan is a network of twelve contact schools, providing liaison between primary schools engaged in innovation. It is a part of Project No 8 "Innovation in primary education" of the Council for Cultural Co-operation (CDCC) of the Council of Europe (1982-1987).

The Contact School Plan was added to Project No 8 in order to allow the people who are active members of the work force for the innovation in primary schools in Europe, to have a direct and concrete input into the project. Project No 8 was never meant to just produce beautiful words about innovation: it would pass on, systematise and generalise successful experiences and set-backs in the reality of the innovation within the various member States of the Council of Europe.

Accordingly, the general aims of the Contact School Plan were formulated (Project Group, Malta, March 1984):

- to bring together schools involved in comparable types of innovation;
- to enable the project to take into account the results of experiences;
- to "feed into" the project the reactions of teachers, educators, and parents, and the ideas and proposals resulting from the more conceptual work of the project.

The Contact School Plan consists of 12 projects that are shown on the map.

Volksschule 15, Vienna	A
Kornesios Primary School, Nicosia	CY
Bankagerskolen, Horsens	DK
A. Schweitzer Grundschule I Freiburg	D
Linnala School, Imatra	SF
128th Primary School, Athens	GR
C. Laurenti, Civitavecchia	I
H.E. van Duyvenvoorde, Oost-Souburg	NL
Vardasen Primary School, Kristiansand	N
Fajanskolan, Falkenberg	S
Guthirt Primary School, Zug	CH
St. Aidan's Primary School, London	GB

The Working Group on the Contact School Plan, consisting of representatives of the schools and a management group, held four meetings: Strasbourg (June 1984), Falkenberg (April 1985), Cyprus (October 1986) and Strasbourg (March 1987). During the first two meetings discussion concerning the state of affairs in the schools and the organisation of the project only took up a small part of the meeting's time.

A greater part of the time was spent in exchanging experiences and coming to conclusions about two themes:

- the implications of innovations for schools and teachers;
- basic conditions for implementation of certain innovations.

The results of these discussions form one of the building blocks of this report.

In the last two meetings the first and second draft of this report on the Contact School Plan were the main subjects for discussion. Especially the analysis of similarities of school improvement in the contact schools was discussed.

2. School improvement in different zones

In school various zones can be distinguished in which improvement can take place. Between these zones there is a strong consistency that fluctuates, keeping things in balance: changes in one zone make changes in another zone necessary.

There are five zones to be distinguished:

Zone 1: educational goals and principles.
Zone 2: organisation of education.
Zone 3: content of education.
Zone 4: organisation of the co-operation of the teaching staff.
Zone 5: organisation of external contacts.

I developed this model of the five zones when the schools with which I was working, in the Netherlands, started to feel a strong need for some expedient to prevent imbalance in school improvement:

"Do we keep the total development of one school sufficiently in mind when making decisions on changes?"

"Don't we make lopsided improvements?"

"Don't we overlook other important sectors in our school?"

"Do the changes that we have adopted affect other areas?"

The five zones delineate areas within which school improvement can take place. They also indicate coherence: changes in one zone give consequences in another, so that there, too, changes must be planned.

For instance: the introduction of working with mixed age groups, instead of working with single age groups, or yearly grades. This happens to be an improvement in Zone 2: "Organisation of Education".

Those who are working on this more and more realise that the most important effect is: the possibility of having a greater influence on the socio-emotional development of children. The need for a genuine image of one's self in each child is recognised. Discussions on this among all members of the team are held; fortunately, Zone 4, the co-operation of the teaching staff, provides for this opportunity. These discussions, then lead teachers to accepting this realistic self-image of children as an important principle to strive for in the pursuance of the educational goals of the school. This, by itself, is already an improvement within Zone 1.

Next it is decided to prepare a programme of lessons for older children to teach them how to cope with emotions and to make them realise to what extent they should heed the presumed judgment which others will give to their behaviour: a change in Zone 3. After this programme has been prepared and tried out on a small number of children, it is implemented in the whole school.

Around the same time a number of evening meetings for interested parents is organised to make them familiar with what this programme, which is being carried out with their children, pertains. This is an improvement in Zone 5: "organisation of external contacts". Just an example of how school improvement goes from one zone to another, an example from the reality of the Dutch contact school.

Zone 1 is concerned with the aims and principles indicating the work of the teaching staff (not only didactic approach and organisation, but also pedagogy).

Zone 2 covers the circumstances under which the teaching staff can work (group division, the moving of children from one group to another, the report, the organisation within the groups, the work done with groups of mixed abilities, the use of space in the school).

Zone 3 is the subject matter, the aspect devoted to curriculum development, didcatic approach, choice of activities, observations, evaluation and so on.

And Zone 4 and 5 indicate how good organisation and good external contacts can bring education to its fullest advantage.

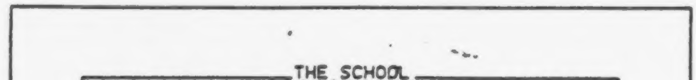

THE SCHOOL
educational goals and principles
organisation of education
content of education
organisation of the co-operation of the teaching staff
organisation of external contacts
educational authorities
support system
parents
EXTERNAL GROUPS
school improvement from within

figure 1

This model shows some resemblance to the model of Miles and **Ekholm:** "The Nature of School Improvement". The solid arrows represent strategies and interventions undertaken, in particular, on the side of co-operating teachers. The broken arrows indicate to what direction changes within a particular zone are likely to exert influence.

I availed myself of this model of five zones, to be considered in school improvement from within, to analyse the progress of the twelve contact schools. For every zone I took notice of whatever was indicated as a subject of school improvement: subjects on which work had come to a close, as well as those still being worked on or just in the stage of planning and preparation. The analysis made it immediately obvious that in all contact schools the school improvement extended over several zones. In nine out of the twelve schools there was mention of the desire to develop the school in a balanced and coherent manner by giving attention to various aspects of school work at the same time. This was regarded as an important characteristic of one's own efforts at school improvement.

Finally, the qualitative analysis of progress reports yielded fourteen such characteristics of school improvement: qualities which could be regarded as important and therefore worth striving for in the development of the contact schools. Only those aspirations which in fact were being worked on, or had been, in a school as a subject of change, were included in the analysis. Matters which were only mentioned as important, but which were not concretely worked on in the practice of a school, remained outside consideration.

3. Similarities in Zone 1: Educational goals and principles

In this zone three points stood out in the contact schools:

- active individualisation;
- autonomy and co-operation;
- child-teacher relationship

ACTIVE INDIVIDUALISATION

In their improvement work the contact schools have been directing their attention to:

- letting children learn more
- letting children learn more useful things.

• Not by offering all the children more subject matter, but by utilising all the abilities each child has, so that each child achieves a greater command of things that are relevant.

This is based on a certain knowledge and conception about learning and development, which we summarise below.

One important thing that we know about the learning process of 4-12 year old children is:

Children learn most from "working" with concrete objects. Besides, and above all, they learn by first grasping things "intuitively" and from there arrive at the stage of working consciously.

This learning process is stimulated by verbal activity, by putting ideas into words, either to other children or to the teacher (who assists in this).

The differences between meaningful learning and rote learning also plays a role here.

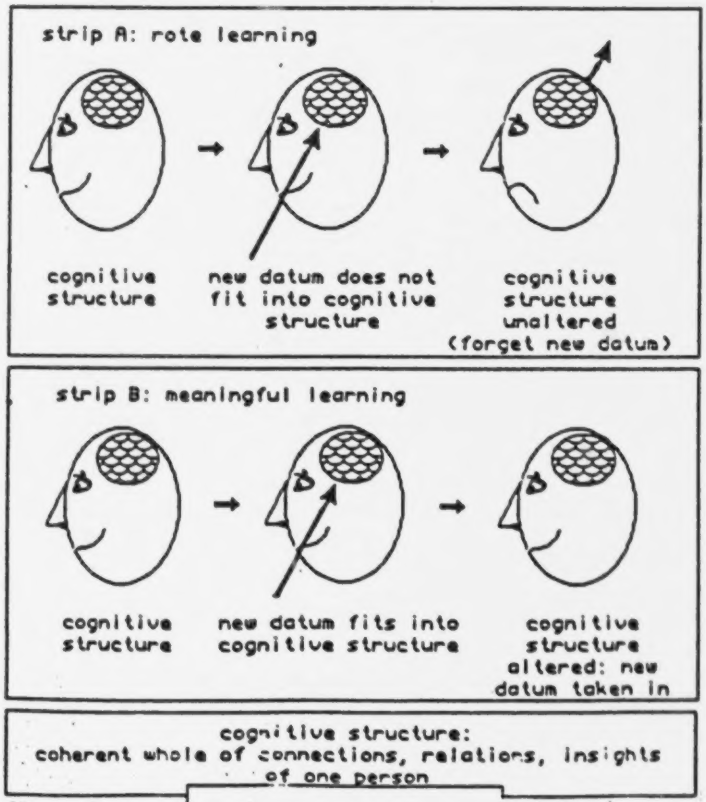

strip A: rote learning
cognitive structure
new datum does not fit into cognitive structure
cognitive structure unaltered (forget new datum)
strip B: meaningful learning
cognitive structure
new datum fits into cognitive structure
cognitive structure altered: new datum taken in
cognitive structure:
coherent whole of connections, relations, insights of one person

figure 3

meaningful learning

If education of children is to be realised, and bearing in mind how children learn, then active individualisation is needed:

- children are confronted with things that they can, to some degree, be ready for (don't wait and see, but take in tow and be sure to pay attention to whether they are able to fasten the ropes)
- children are forced to take an active part in education, both mentally and physically, through which they must keep their minds on their work. For this, relatively open activities are necessary
- during that active work, children get direct feedback from the teacher (correction, explanation, encouragement, confirmation, help).

The term "active individualisation" stands for the awareness of the fact that individualisation, taking into account the individual differences between children, is not only a case of presenting different subject matters to different children. That is not enough: both the teacher and the child have to be active and activate each other in the teaching/learning process. This "active" aspect of active individualisation includes the concept of "interactive learning": learning which emphasises activity and immediate return of information rather than written work, which needs the development of open-ended investigative styles of working in schools and which stimulates the development of problem solving strategies by children.

AUTONOMY AND CO-OPERATION

An important aim of education is to create people who are able to do new things: people who do not only repeat what other generations have done.

People who are creative, who are inventive, and who are discoverers. A second aim of education is to shape minds that can be critical, that can verify things and that do not accept everything they are being offered.

A great threat to individual thinking comes from vogue works and terms, collective opinions, ready-made trends in thinking. People, as individuals, must be able to stand up against them, to be critical, to be able to discriminate between what has been proved and what has not been proved. Therefore we need children who are active, who at an early age learn to find out things for themelves, partly through their own spontaneous activity and partly through the material they are offered. Children who at an early age learn to tell what can be verified and what is an idea only that has been thought of by them.

To be able to exercise criticism and to choose individually, people need a good deal of specific knowledge and moral courage besides. A conformist education or traditional school does not encourage independent thinking. Many contact schools think it necessary to encourage autonomy right from the start, because they want to succeed in helping individuals reach the highest possible levels of emotional and cognitive development.

We cannot expect children to conform to the pressures of parents and school for the first ten years (or longer) of their lives and then suddenly expect them to show initiative and autonomy.

For many contact schools, the fundamental principle of "autonomy" has not resulted in children being trained to be individualists and egoists. On the contrary: the pursuit of autonomy as an attitude by each child implies the necessity to respect each other's autonomy. And children are taught this by explicitly bringing them situations where co-operation is necessary both within the educational learning process and deliberation about the rules that hold good in a particular group, up to having a say in the complete ativities, lock, stock and barrel, of the whole school.

Co-operation, the working together and living together on the basis of equivalence and of respect of respect for everybody's autonomy, forms the logical and psychological counterpart of autonomy in itself.

In many contact schools autonomy and co-operation are the leading principles that work on in the concrete composition of starting points, for example:

- the co-operation and relatively open educational learning situations within "active individualisation";
- the working towards mutual respect and not exercising the use of power too much in order to solve problems between teacher and child within "relation-child-teacher";
- the lessening of the risk that a child runs of becoming a fixed stereotype in a class that has been together for years, by organising "mixed age groups" (Chapter 4);
- giving a wide-berth for the child's own initiative and contribution within "activities stimulating broad development" (Chapter 5).

CHILD-TEACHER RELATIONSHIP

Quite a lot of contact schools ascertain that there is an increasing lack of satisfying social relations between children and adults. That is why they think it an explicit task for the school to provide the children, for the sake of the development of their personality, with certain models, by way of the adults working there, with whom they can identify themselves: somebody whom you care for, who is interested in you (not only in your new jumper), who is open about him/herself, who has an identity of his/her own. This places teachers in the situation of having to enter into individual relationships with individual children (instead of a collective relationship with a group). And that requires an organisation of a group in which there is time for "one-one-contacts".

At some schools this principle has led to explicit educational activities in the field of "learning to work together" and "self control/learning to be myself" for the older children. It also asks for open contact with parents about the child as a person. A task that teachers also bring in is: associating with adults. At many schools both the necessity and the difficulty have been ascertained.

4. Similarities in Zone 3: organisation of education

In this zone the answers are given to questions like:

How are children divided among the teaching staff? Are the groups formed according to standard or grade? Or are classes of combined grades (or standards)? Or are children of different ages consciously grouped together? How is a group formed then? How long do the children usually stay in a group? How many times in a school year can children be "moved"? Are reports given? About what? Has each teacher a permanent group of children? If not, what then?

In the contact schools three distinctive points clearly stand out:

- watching progress and development;
- arrangement of time and didactic working methods;
- mixed age groups.

WATCHING PROGRESS AND DEVELOPMENT

The organisation of the learning process is much more complicated at the contact schools than in traditional education where all children in a class are busy working at the same thing.

The realisation of principles like "active individualisation", "activities stimulating broad development" and sometimes "mixed age groups" provide a situation in which the teacher is not automatically aware of the children's progress and their development. Without special measures there is an increased risk of remaining in the dark, the teacher's unawareness of the slackening or even the stagnation of progress or development of a child in a particular area. And this would be the opposite of what postulates like "active individualisation" and "varied range of subjects offered" are meant to accomplish namely: to make the most of the potentialities of every child as effectively as possible.

For education to be as effective as possible for every child, the teacher must, of course, be well informed about all the actions of every child. In the contact schools this proved to be one of the most crucial points: keeping in touch by paying great attention to the registration of the process made by children.

Use is made of summative tests and especialy of formative evaluation, built into the learning process and after that applicable in the following learning process. At the contact schools many ways of systematic observation and registration have been developed by the teachers or experts who were assisting them and these are being used a lot in schools.

Sometimes the abundant data available about the child are also used to give a detailed report about the child's progress to their parents.

Many teachers in the contact schools find that, apart from getting used to "autonomy and co-operation" and "personal relation child-teacher", they have to attain an attitude towards continual evaluation in order to learn to work in an effective and relaxed way within the complexity of individualised education. To obtain concrete knowledge in this field, training for teachers was, and is, organised in the contact schools, internally, or with the help of experts. This is also a good way to settle in new colleagues.

ARRANGEMENT OF TIME AND DIDACTIC WORKING METHODS

Rather from the discussions about the progress reports and my first draft of the analysis during the meetings of the representatives of the contact schools than from the progress reports themselves, it appears that similarities in organising activities in a class or group can also be found in quite a number of contact schools. It is clear that a day planning for children is strived for, in which the working methods used also provide for variety. Next to individual activities and activities in groups, it appears that in education based upon individualisation, there is quite a lot that the whole class, TOGETHER, can do, experience, express, celebrate, discuss, arrange, evaluate.

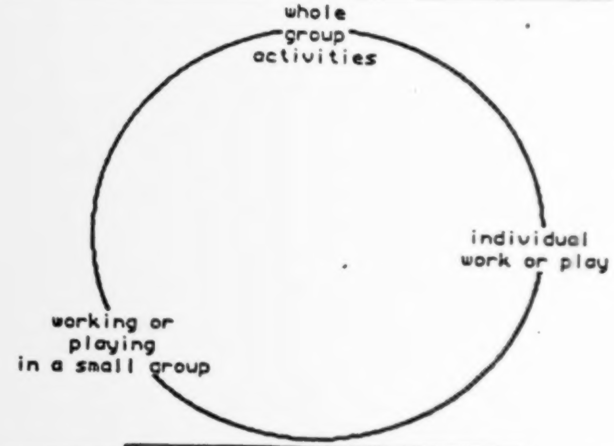


figure 4

didactic working methods: activity circle

In a number of schools a fixed, regular number of successive activities was found necessary for the younger children (up to about 8 years). A fixed rhythm during the day is considered conducive to the clarity and feeling of security of the children and works to support the development of their awareness of time.

By diversifying various working methods, a number of contact schools have taken into account a division of what we could call "three sorts of time": diffused time, individual time, optimum time.

Diffused time

In contact schools classrooms are active places. For teachers and children this means that they are being flooded with incoming stimuli: four children playing a group game, three children discussing questions about a text they have read, two children working with construction material, three children reading a book, two children walking from their working place to the library, the teacher instructing seven children how to read in a melodious and natural way ...

In these circumstances children learn how to screen incoming stimuli: which noises, feelings, sights, or tastes to pay attention to, and which to ignore. Concentration, for the most part, is the use of energy to suppress awareness of all incoming stimuli except one or two. Ultimately any teacher's or child's supply of energy that is used to suppress awareness becomes exhausted. Children - and teachers - can't stand "diffusion" (and confusion) all the time.

Individual time

Individual time has the quality of descreased sensory input. It is important to recognise that each person in a learning environment must be able to get some time alone, time away from the "maddening crowd", time to think, to process, to re-charge, to work or play on her own. A long list could be made of all the solutions for this problem that have been found in the contact schools. Some examples: "quiet corners" in the classroom or outside, individual study cabins, special "solo places" outside the classroom, use of places like the library, the teachers' room and stock rooms, vision screens to divide the classroom into several spaces, use of headphones and cassette recorder.

Optimum time

Optimum time is inter-personal time, one to one, between the teacher and child. Good relationships can be built. But to do it, teachers must create some one-to-one time with children. In the contact schools that work from the principle of "active individualisation" one-to-one time is often combined with the time that is needed for the direct feedback from the teacher on a child's glory. If a classroom is arranged to meet the need of individual time, it will give the teacher the opportunity to find quiet places for optimum time too.

Of course, all this can only be realised if the teacher manages to organise the activities in his class efficiently: without the need of continuous instructing and arranging behaviour of the teacher.

MIXED AGE GROUPS

In the contact schools we find schools organised in age groups as well as groups organised in mixed age groups. In some countries there is a strong tradition in organising schools in combined classes;

mostly in small schools where teachers manage their combined classes by organising most of the teaching and learning in "sub-classes". In fact they succeed in handling three or more year classes in one classroom. In some countries (eg Finland) a lot of work is done to change this rigid organisation into a more vivid and flexible way of classroom management.

It is clear that the remaining features of the contact schools can be realised very well both in age groups and in mixed age groups. The consequence of a number of these features is that no strong limits concerning subject-matter can exist between the successive groups in a school: this restricts, notably, the realisation of the principle of: "active individualisation".

In some countries the traditional subject matter limits between groups or classes are impossible because of the integration of the handicapped children. In Norway for example a law makes integration of handicapped chidren into the local school a parent's right to choose. In some contact schools there is quite a special type of mixed age group present or in development; this type of mixed age group had advantages in the area of influences on the personality development of children. This is especially due to the fact that the social status of a child with regard to the other children in his group can be changed more easily.

These special mixed-age groups present the following characteristics:

- Children of different ages are together in one group (2 to 3 years difference);
- The individual differences between those children are taken seriously in education; activities are organised in such a way the children can also learn from each other;
- The children in the mixed age groups do a lot of things together, do many things in small groups and they also do things by themselves;
- Within the mixed age group, homogeneous groups can be distinguished in the "cognitive areas". These groups vary in composition;
- Children remain in a group for longer than a year (often 2 to 3 years). Moving to another group can take place more than once a year.

The following reasons are mentioned for working within this kind of mixed age group:

1. An organisation of mixed age groups offers more opportunities for development regarding the social emotional aspects. The children are able to gain experience from a changing social position within the group. Regularly, children move on to another group.

So the child experiences another child's change when it joins the group as a "beginner" and has to be helped to get used to this new situation until the child has become familiar with it, and can help other children to feel at home in the "new" situation. Generally, children are with the same teacher for about two years.

2. Within mixed age groups, it becomes possible to offer children more opportunities to learn from each other because there will be more differences in development; and learning is determined, to a minor extent, by being able to keep up with the learning process to a greater or smaller degree.

3. Working in mixed age groups offers better opportunities to guarantee a continual development. Furthermore, the system of failing or passing on to a next year is abandoned, and replaced by shifting moments that occur three times a year.

4. By establishing mixed age groups, the teaching matter and "class year" in which the child functions are no longer linked. This diminishes or obliterates difficulties encountered by the child in the current system.

The last three points could be realised in age groups too. The first point gives the specific benefit of this kind of mixed age group. At the contact schools it can be seen clearly that the need to work in mixed age groups is also connected to the degree with which the presentation of subject matter has been disconnected from particular year clases or ages. At some schools a development can be seen in which a number of stages can be marked out; this development is shown in figure 5.

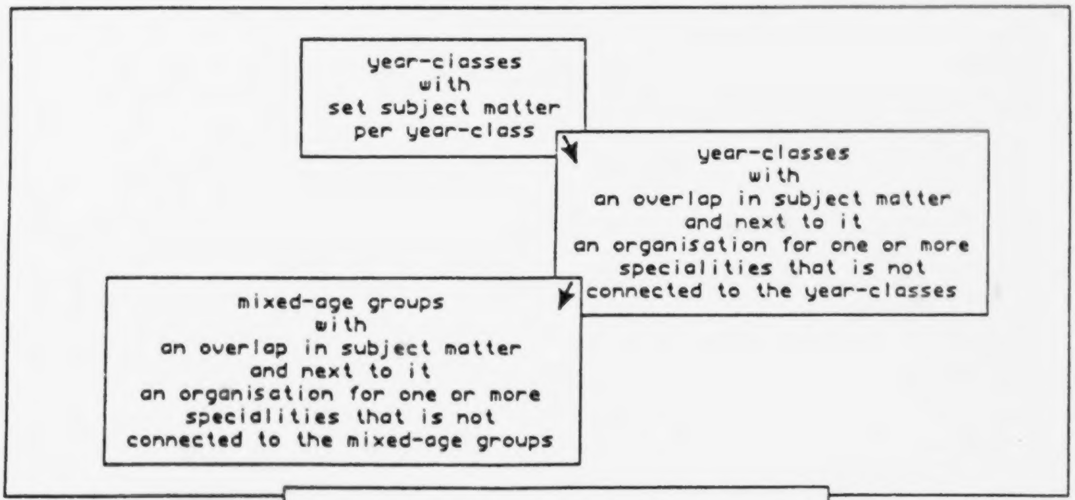

year-classes
with
set subject matter
per year-class
year-classes
with
an overlap in subject matter
and next to it
an organisation for one or more
specialities that is not
connected to the year-classes
mixed-age groups
with
an overlap in subject matter
and next to it
an organisation for one or more
specialities that is not
connected to the mixed-age groups

figure 5

from year-class to mixed-age group

5. Similarities in Zone 3: Content of education

School improvement in primary education is often only about this area: in this, improvements relating to the content or didactic approach to a subject were made. At the contact schools there is always something more going on. There is also improvement in other zones. Does that explain perhaps their success at innovation?

It is exactly in this zone that the diversity is great and very much tied to the macro-level: the national school system and traditions. With some difficulty it seems, after all, that two similarities can also be pointed out here: two characteristics that hold good for many contact schools:

- varied range of subjects offered;
- activities stimulating broad development.

VARIED RANGE OF SUBJECTS OFFERED

At all contact schools it was realised that in order to get the most out of children a varied range of subjects is needed. To discover all the talents of the children and to help them develop these talents further, attention must be paid to many and various things:

- Many "areas of knowledge" and "areas of expression" are therefore presented in relation to daily life;
- At the level of primary education it is, above all, getting to know and taking hearings of all possibilities; in this, playful activities, self-expression, and experiences are of the greatest importance. Only towards the end of the school period can a command of techniques also play a role to some extent;
- This applies, at least, to world-orientation, art education and computer education;
- Of course one teacher cannot usually inspire and stimulate the children in all these areas of development. Concerning these areas the tradition of "one teacher, one class" has therefore been broken for the older children at some contact schools.

ACTIVITIES STIMULATING BROAD DEVELOPMENT

By "activities stimulating broad development" we mean activities of which it is difficult to say which subject area they belong to, because they are important for many subjects. An example:

In a discussion children learn, of course, a lot about the language but their powers of concentration and their specific skills of listening are also stimulated. The opinions, ideas and experiences of different children come up for discussion and the experiences and information of the teacher are passed on. And so at the same time an important aspect of world orientation take splace. And there is even a chance that some children will learn something in the area of their verbal and non-verbal ability of expression.

At any rate it is clear that such an activity as "discussion" presents possibilities for very broad development: in many subject areas. Of course there is much more than "discussion". For example other activities that can usually be done by the whole group together, such as: reading aloud and narrating, celebration (beginning and ending the week, ending the month and such like); outdoor games, indoor games (in a playroom or hall for example), gynmastics, language games and such like.

And further, many activities that can usually be done in small groups and individually too. These activities can be thought of: reading library books, working with picture books, reading-writing corner, construction activities, working and playing at the group games and such like, working in a drawing and painting corner, writing corner, working with construction material, etc.

Activities stimulating broad development are certainly very necessary for 4 to 8 year olds. And they are still necessary for older children. In these sorts of activities children can construct their fundamental views: "an inner frame" upon which they can "hang up" further specific knowledge and skills; without such a well developed frame much knowledge that is to be learnt becomes meaningless.

From the above it has become apparent that the attention to activities stimulating broad development is closely linked to the principle of "active individualisation". The importance of activities stimulating broad development also comes from the fact that many contact schools in their school improvement are looking for a synthesis between what could be defined as "playing" and "learning". Especially with younger children we are dealing with good infant school activities on the one hand (activities like sand/water play, block building, motor development activities) and on the other hand learning to read, arithmetic and writing. Subsequently the matter of the development of the children to be gone into. But how? "By simply letting them do the activities they need, activities they are ready for!" "and you do that 'simply'?"

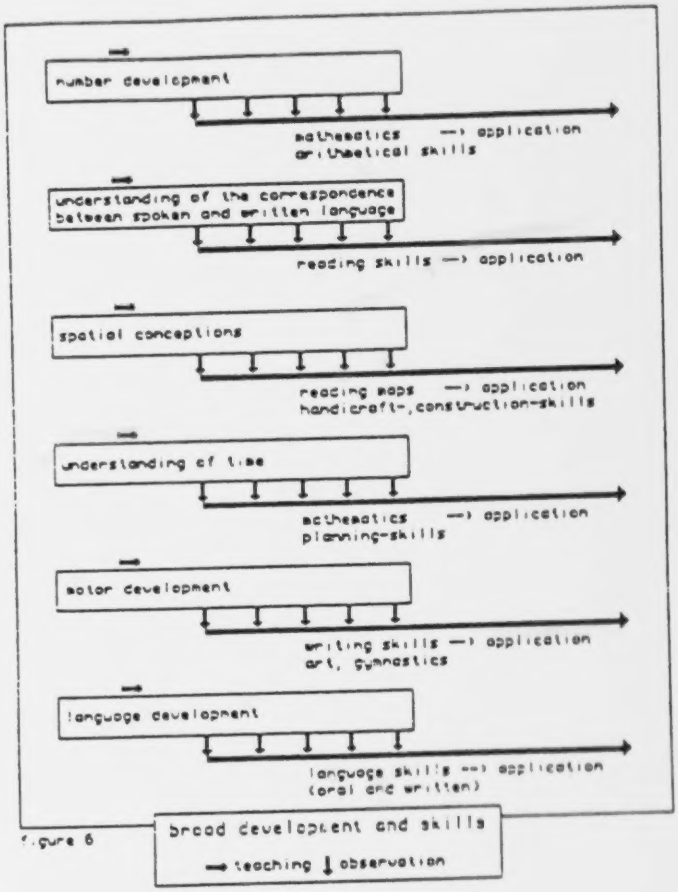

number development
mathematics —› application
arithmetical skills
understanding of the correspondence between spoken and written language
reading skills —› application
spatial conceptions
reading maps —› application
handicraft-, construction-skills
understanding of time
mathematics —› application
planning-skills
motor development
writing skills —› application
art, gymnastics
language development
language skills —› application
(oral and written)
broad development and skills
→ teaching ↓ observation

figure 6

To be able to do this, teachers must know when it is the right time to start reading, arithmetic or writing without making blunders. And they must know what the "infant school activities" are really good for. And they must be able to discriminate what skill is behind in development, and the subject-matter you can learn at a particular moment.

The following applies to all these development lines:

- they are in relation to each other;
- they require rather open, active and also verbally performed activities; these are, above all: activities stimulating broad development.

6. Similarities in Zone 4: organisation of the co-operation of the teaching staff

First the limitations of this zone: it does not go further than the teaching staff. The reason for this is that we are describing common characteristics here. At a few contact schools, however, this zone is in fact more extensive because the non-teaching staff is definitely involved in the organised teamwork tool.

In this zone the school is managed: decisions are taken, discussions are held, support is provided. In the contact schools three striking similar features can be found:

- organisation structure;
- support and friendship;
- leadership.

THE ORGANISATION STRUCTURE

In most present day schools the organisation structure is, on the whole, quite unclear. The experiences in the contact schools teach us that as long as everything runs well, this does not matter. But in this way a school is unable to cope with any conflict. The meaning of organisation structure is: how are the decision making, the mutual help and relief and the financial control arranged? Who decides what takes place in a class? And so on. It is of great importance that good agreements are made about these matters. And that a well-ordered outline is noted down.

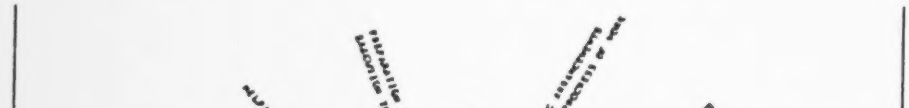

TEAMWORK FOR EDUCATION
GOOD FUNCTIONING OF TEAMWORK
EDU-CATION
UTILISE FINANCE AND ADMINI-STRATION
UTILISE EXTERNAL CONTACTS
CONTACT PARENTS
SCHOOL BOARD
OTHER SCHOOLS

figure 7

the steering-wheel of school management

Most contact schools have a clear internal organisation or are, among other things, improving school in this zone. The various aspects of it are to be found in Figure 7. Also the parts of Zone 5 are mentioned in it. With a little goodwill and imagination on the reader's part, a steering-wheel can be recognised.

In a number of contact schools a development has taken place in which the organisation structure of a collection of practices, agreed upon or otherwise, has been consciously worked out or changed into a well set out organisation structure and which has been explicitly laid down by the teachers.

On the whole that evolution has taken place under the influence of the possibilities that arose: obstinate or incapable teachers, negative reactions to school improvement from the outside world, arguments between teachers, unexpected events during the process of school improvement, and such-like.

During such a difficult period, it became evident that there was a need for a less hazy arrangement of the organisation structure, less based on goodwill from every involved person. In the outline below, a school can be placed, with the help of a vertical line: the intersection of the white and grey parts of the rectangle indicate the extent to which the organisation structure is based upon: explicit agreements (white) and habits (grey).

Two examples: In school A a great part of the organisation structure has been clearly drawn up: in school B work is mainly being done in accordance with the habits that have come into being.

The arrows indicate the number of consequences.

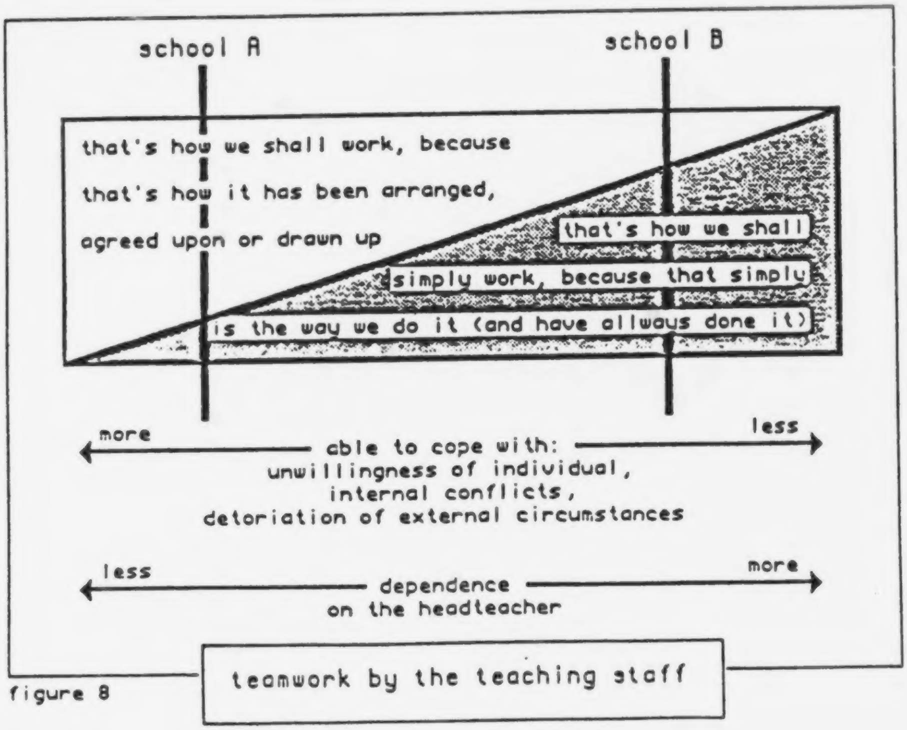

school A
school B
that's how we shall work, because
that's how it has been arranged,
agreed upon or drawn up
that's how we shall
simply work, because that simply
is the way we do it (and have allways done it)
more
less
able to cope with:
unwillingness of individual,
internal conflicts,
detoriation of external circumstances
less
more
dependence
on the headteacher
teamwork by the teaching staff

figure 8

Merely the fact that an organisation structure has been drawn up well and been laid down by the teachers, does not, of course, make for a good organisation structure. In addition three points play an important role:

- CLARITY: (the structure must be concrete and clear for all those concerned, at least about the tasks that are expected of every individual);
- PERCEPTION: (in a good organisation structure teachers do not do "everything together", the work that is done by sub-groups or individuals must, however, remain perceptible to those who are not directly involved);
- CONSISTENCY (an organisation structure is not an aim in itself; it must be a means through which education and school improvement can pivot on it a good manner, nothing less but also nothing more).

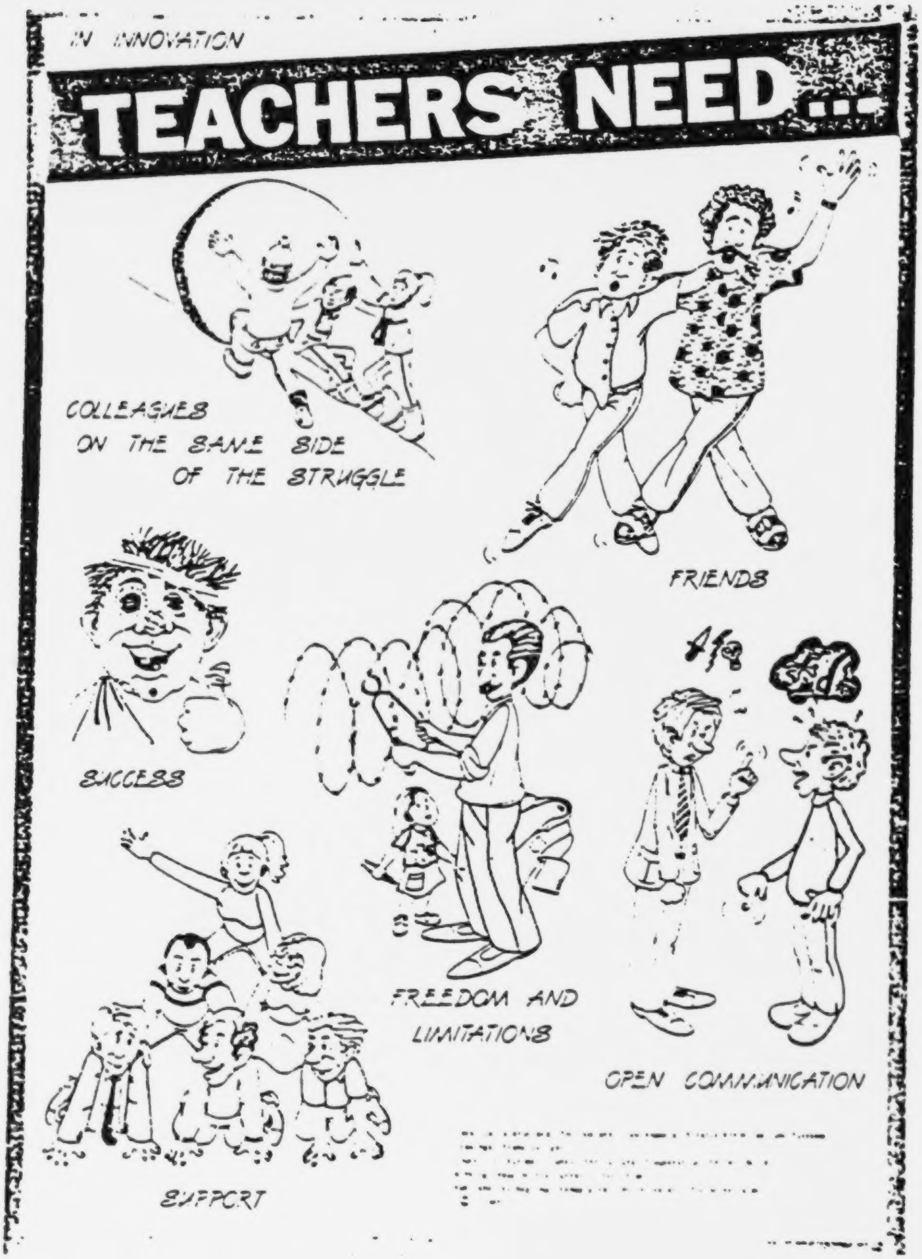
SUPPORT AND FRIENDSHIP

In the contact schools a lot of attention is paid to the organisation of the present "teamwork for education". A good support structure in the school by which contact and mutual help among the teacher concerning the daily work with children is provided, is indispensible for a good school.

At a school you do not, after all, only work to earn your living. People (and that means teachers too) also have social needs in their work: the need to belong, to have contact with colleagues, to experience support.

Next to these needs, teachers are in need of recognition: success in work, in need of respect and appreciation. And further teachers want to prove their capacities, to develop their talents.

On account of a such-like observation at the Falkenberg meeting the following poster came about.


IN INNOVATION
TEACHERS NEED...
COLLEAGUES ON THE SAME SIDE OF THE STRUGGLE
FRIENDS
SUCCESS
FREEDOM AND LIMITATIONS
OPEN COMMUNICATION
SUPPORT

LEADERSHIP

The role of the headteacher is important in all contact schools. This person can have an important positive, as well as negative influence. It seems that headteachers with a positive influence share their authority and powers of decision-making with others and involve more people when carrying into effect the tasks associated with a headteacher.

At the contact schools, there appear to be three sorts of tasks associated with leadership, that can be distinguished. With some examples, they have been set out below:

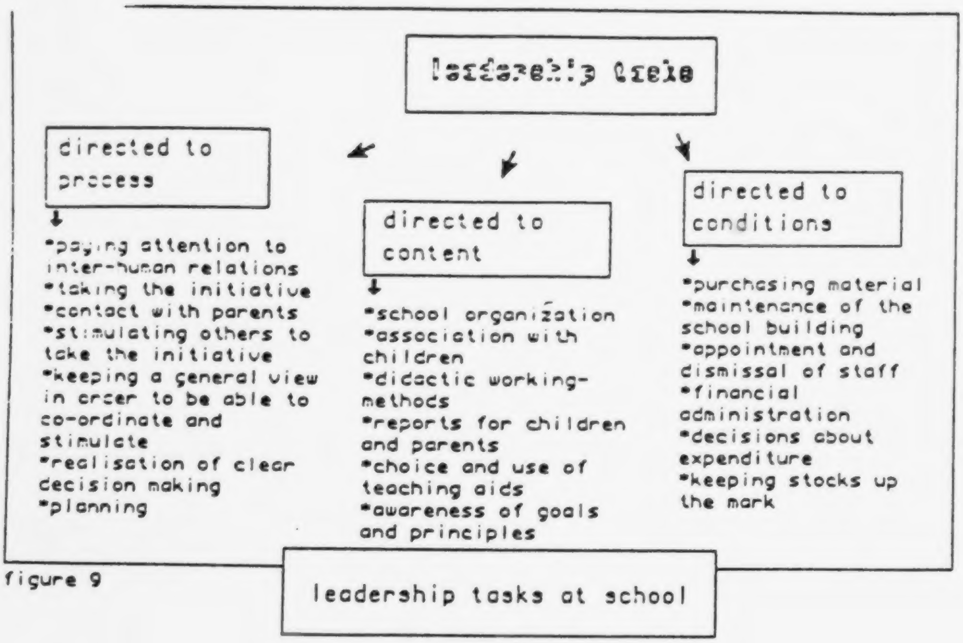

leadership tasks
directed to process
*paying attention to inter-human relations
*taking the initiative
*contact with parents
*stimulating others to take the initiative
*keeping a general view in order to be able to co-ordinate and stimulate
*realisation of clear decision making
*planning
directed to content
*school organization
*association with children
*didactic working-methods
*reports for children and parents
*choice and use of teaching aids
*awareness of goals and principles
directed to conditions
*purchasing material
*maintenance of the school building
*appointment and dismissal of staff
*financial administration
*decisions about expenditure
*keeping stocks up the mark
leadership tasks at school

figure 9

This division can even be used to distinguish three "types" of headteacher.

- headteacher mainly directed to conditions;
- headteacher mainly directed to content;
- headteacher mainly directed to process.

From discussions held between the representatives of the contact schools, one type of·headteacher suitable for school improvement from within emerged, (s)he should be:

- above all directed to the process: the ability to associate with people, conscious of aims, without putting himself in the forefront too much, incorruptible and courageous;
- but also directed to the content: an expert on one or more aspects of education, strong intentions in the areas of progress and wellbeing of children;
- less directed to conditions: inclined to delegate tasks in this area and allocate these tasks among various teachers, no inclination to take advantage especially in this area.

7. Similarities in Zone 5: Organisation of external contacts

"External contacts" is a notion that can bring about a little confusion. What "external" is, depends upon what is included in the notion "school".

If you consider the parents and the school board as part of the school too, then the contacts between the teachers and members of the school board are internal contacts.

When giving a name to this zone we have only considered the contacts between teachers and children and the mutual contact among teachers as internal contacts.

Within Zone 5, the external contacts include:

- contact with school board;
- contact with parents;
- contact with establishments outside the school.

A striking similarity at the contact schools is the great attention paid to: contact school/parents. Professional aid from outside experts is a second common feature in this zone.

CONTACT SCHOOL-PARENTS

The way in which contact schools pursue the object of more positive contacts with parents has been very varied. Agreed upon by everyone in the conviction and the experience that these contacts are badly needed. Especially because through the involvement of parents, the involvement and motivation of the children are increased. Next to this, the consideration of democratisation at some contact schools plays a role.

In the contacts between school and parents two divisions can be made:

- contacts directed to the child;
- contacts directed to the school.

Contact directed to the child is about the parent's own children. Sometimes very direct: visits to the home, parents' evening, monthly contact meetings, parents who just come into the school without an appointment, all of them possibilities that occur in the contact schools. Information in writing also plays a role: the report of the progress of the child, pieces of work, drawings and full exercise books that are taken home, homework. Not all contacts directed to the child are about the individual child. It may vary at the contact schools from class evenings, public lessons and exhibitions, to a course for parents about associating with children.

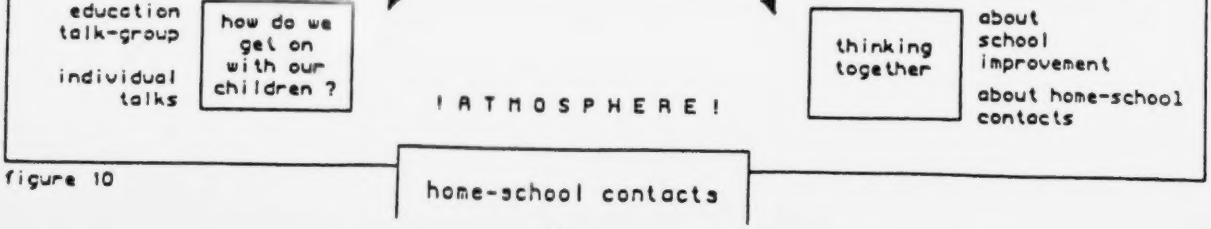

dicussion
information in writing
how is my child doing?
class-parents evenings
information in writing
how is my child's class doing ?
education talk-group
individual talks
how do we get on with our children ?
contacts directed to child
contacts directed to school
! A T M O S P H E R E !
working together
permanent group: with their own reponsability
"jobbing" parents
general contacts
directed to all parents: to inform and to create the feeling of "one school-family"
thinking together
about school improvement
about home-school contacts

figure 10

home-school contacts

The contacts directed to school are intended to involve the parents generally in the school events. In the multitude of activities that we came across at the contact schools, three divisions can be made.

Working together: school-paper editorial staff, garden committee, carpenter work-group, paper-cover group, reading parents, handicraft parents;

Thinking together: parents' evening, participating/advisory council, involvement in the school work plan;

General contacts: parents' evening, bicycle rally, walking puzzle trip, barbecue, intercultural manifestation, a day of games, loose stencils with news, parents' paper, children's paper.

An overall picture can be found in Figure 10 above.

For the contact schools it is clear that the determining factor is: the atmosphere in which the contacts take place.

A POSITIVE ATTITUDE OF THE TEACHERS TOWARDS PARENTS IS THE SUCCESS OF SCHOOL-PARENT CONTACT.

PROFESSIONAL AID

In discussions between the representatives of the contact schools, a recurrent theme came up regularly: the privilege or lack of good expert support for the teachers. The possibilities of having experts at one's disposal are very different, the causes of which are, above all, to be found at the macro-level again: in this area the opportunities made available to schools are very varied according to the country or region. For some schools it is almost impossible to make use of external experts, while for others they are a permanent part of their working method. The clearest example of the latter are those of the Cypriot contact school which is associated with the College of Education of Nicosia and the Dutch contact school which has the permanent support of the Regional Pedagogic Centre, Zealand.

The contact school where the possibilities of recruiting external help are available, consider that help indispensible for:

- training and courses responding to the needs of the school;
- systematically setting up changes;
- giving advice about children who are behind or stand out in their development, progress and social behaviour;
- during discussions teaching participants: how to make decisions, to listen to each other, and respond properly;
- development of working methods for "active individualisation", together with the teachers;
- advising and giving support to the headteacher in his tasks directed to process.

8. The characteristics in the various contact schools

In the chapters before we mentioned the occurrence of some fourteen characteristics which, in relation to the five zones, form specific features in the school improvement within contact schools.

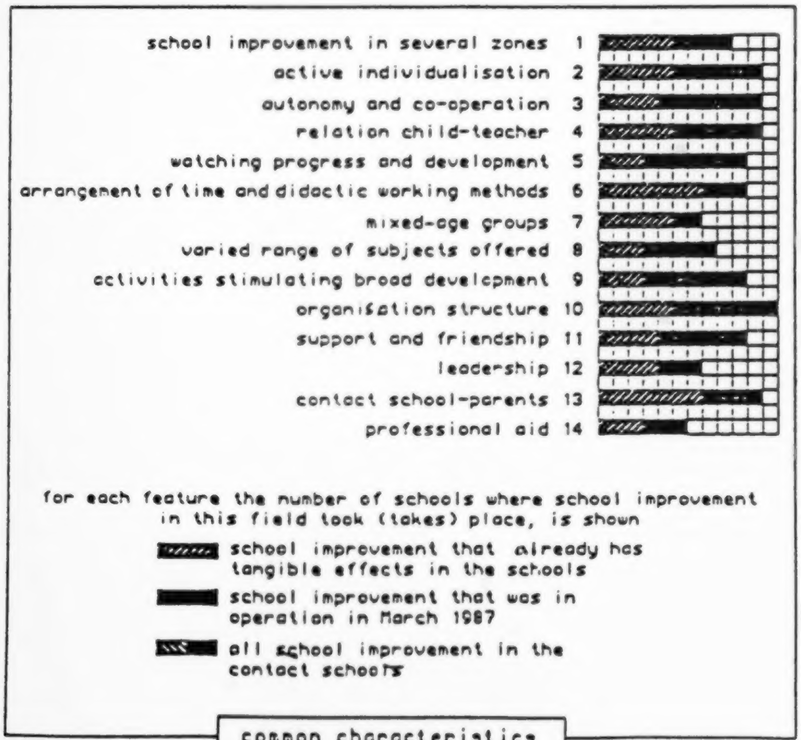
These main characteristics of primary education are to be found at the contact schools. However, not all these points together are always found at every school. It is precisely the combination made by every contact school of a number of these, that makes the school what it is.

The representatives of the contact schools were asked to indicate which of the fourteen characteristics are important in the school improvement at their schools.

Figure 11 provides a survey of the number of schools that worked on each of the fourteen features.

The most important conclusion to be drawn from this overview is that those characteristics which became apparent through the qualitative analysis of the progress reports, the discussions in the meetings, and the visits to schools, were indeed, to a great extent, the subjects of school improvement in the contact schools. Each of these subjects occurs in at least 50% of the contact schools.

The average percentage of schools that work on a characteristic is 79%. Naturally one can draw no conclusion about the importance of a particular characteristic merely from the fact that it is, or was, a subject of school improvement. A characteristic that is, or was, a subject of school improvement in seven schools, is no less important than one that was taken up by eleven schools.



for each feature the number of schools where school improvement in this field took (takes) place, is shown

figure 11

common characteristics of school improvement in the contact schools

There are some differences when we compare the school improvement already accomplished with the total of the improvements. Of particular interest is the impression it gives on what was tackled first by the schools (even to the extent of having already produced tangible results) and what they are busy with now. One should bear in mind that those subjects on which school improvement has already been accomplished countinue to play an important role in the school.

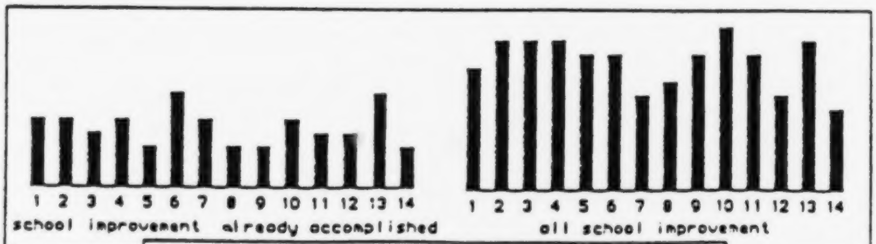


figure 12

start and further development of school improvement within the contact schools

"Arrangement of time and didactic working methods" (No 6) and "contacts school-parents" (No 13) are most obviously present in the starting period of the improvement in the contact schools.

Comparing the two graphs one may notice that the greatest differences occur in the areas of:

- autonomy and co-operation (3)
- watching progress and development (5)
- organisation structure (10)

These apparently are matters which become important, in many schools, only at a later stage.

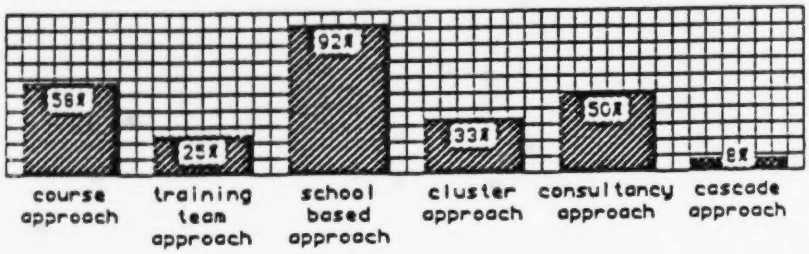
In the case of "autonomy and co-operation" this variance results from the experience that more individualised teaching requires children more and more to work independently.

Children are not able to do this all of a sudden, used as they are to the accustomed approach of "do as you are told". Soon the teachers realise the need to teach the children explicitly how to work by themselves and how to co-operate properly. At that stage it becomes a matter of school improvement by itself.

Attention for "watching progress and development" is somehow similar. One effect of diversification in the teaching approach is that the teachers lose immediate control over what the children are actually doing. Whereas formerly, before school improvement started, all children were doing the same thing at the same time, it now differs from child to child, soon the teachers become aware of the need of a systematic approach in order to keep track of the children's "progress and development". So, introducing systems of observation and registration, of formative assessment, now also becomes a new objective for the school's efforts at school improvement.

By March 1987 "organisation structure" was, or had been, a subject of school improvement at all contact schools, which makes it the only one of the fourteen characteristics to have been taken up by all schools.

This sequence of events is, in fact, the outcome of processes already described in Chapter 6: because of the problems experienced in the making of decisions (such as friction among teachers, a desire to involve parents as well, or even the pressure of work upon the teachers), the need is felt to make "consultation and decision-making" itself a subject of school improvement. The desired outcome of these efforts would be a clear, efficient, and well functioning organisation structure.



per approach the percentage of schools that used or uses the approach, is shown

figure 14

approaches in school improvement in the contact schools

9. Approaches in school improvement in the contact schools

In his contribution to the final report of Project No 8 (Chapter 3), Maurice Galton describes six "styles of innovation" that have been identified from the case studies which have been carried out during the period of the project.

The representatives of the contact schools were asked to point out which approaches were used in their schools. Per approach that was used they had to add information about the content of the school improvement. The content had to be indicated in terms of the fourteen characteristics.

The answers to these questions were points of discussion in the March 1987 meeting of the representatives, to be sure of equal interpretation of the approaches by all representatives. Figure 14 above shows the results of this research.

This diagram clearly shows that the school based approach was the approach mostly favoured by the contact schools. Indeed it was, also to their own conviction, the key to their success. It is the approach which brings about the commitment of the teachers. And without this commitment no school improvement would succeed. Is not the effect of an improvement always a change in teacher's conduct? If solely the school based approach is applied, there will be the disadvantage of not making use of information and expertise which comes from outside the teaching staff. In the contact schools this disadvantage was reduced by employing other approaches next to the school based approach. Particularly by utilising the course approach and the consultancy approach - both notably present in the diagram - the relevant expertise from outside the school was taken care of.

From conversations with representatives of the contact schools it became evident that making use of the consultancy was rather difficult for a number of schools simply because they could hardly find a consultant. Nevertheless, because of recent developments in four schools, it looks as if the consultancy approach will, within the foreseeable future, score as high as the school based approach.

It is striking that in these school improvement projects the school based approach should score so high, apart from whether the improvement was initiated by national or local authorities, or within the school itself. Because the representatives of the contact schools were also asked to indicate for which improvement (in terms of the fourteen characteristics) each approach was applied, it is possible to trace differences in the use of the approaches, too, for each zone.

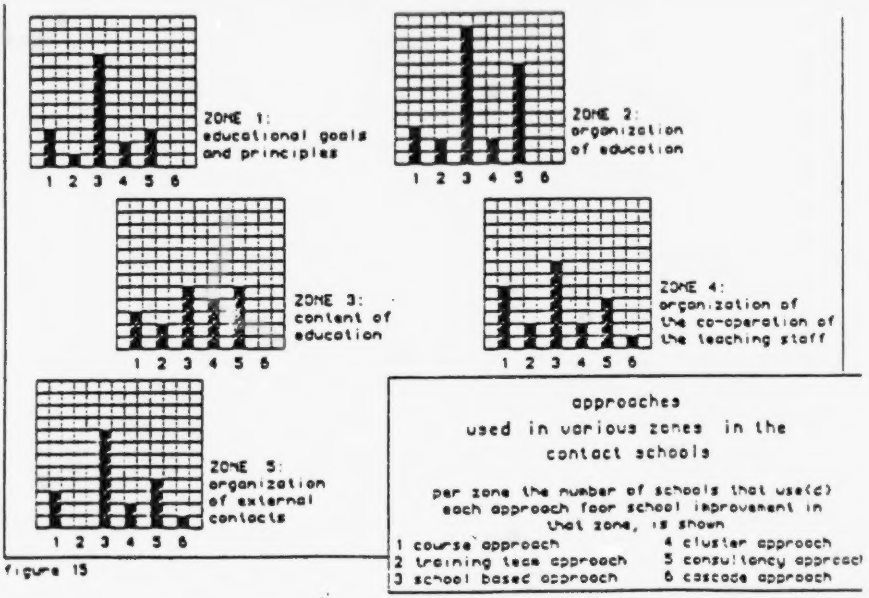


figure 15

In broad outline we recognise the same pattern as in the overall survey, shown in the previous diagram (Fig. 4).

Yet a few points stick out:

- The school based approach is at least evident in the school improvement zone, Number 3. It seems as if co-operation with others and expertise from outside are as important for improving the content of teaching as working at it internally, within the school itself. This is not so surprising considering that for curriculum development specific knowledge and expertise are indeed required;
- The use of the consultancy approach stands out in Zone 2. One would say that, within this zone, the need for external expertise is greater than in other zones. It would be interesting to find out what the specific needs would be, as there is no information about this, yet;
- The course approach is relatively much utilised in Zone 4. Apparently the course approach gives special advantage to improving co-operation among teachers. It was possible to gather some evidence on this during the March 1987 meeting of

contact schools. What actually took place seemed to be directed towards improving communication and co-operation skills in teachers. Some management courses, too, seem to have had some influence.

10.The end of the search (?)

I started my search with the intention to look for common features in the "school improvement from within" in the twelve contact schools. Thereby I also tried to find answers to some questions.

> "Would it be possible to identify specific zones of attention in 'school improvement from within' to which every school should apply itself in order to develop evenly?
>
> And would these zones be perceptible in the work of the contact schools?"

To answer this question I used my framework of five zones in school improvement, described in Chapter 2. This framework proved to be applicable to the "school improvement from within" of the contact schools:

- in each zone of the model common features of school improvement could be found by qualitative analysis of the contact schools' progress reports;
- the further research made clear that in the reality of the contact schools much attention is paid to all zones, eg see Figure 13 in Chapter 10.

Among the fourteen common features in school improvement that were found in the contact schools, the characteristics of Zone 4 are very important ones, for it is this Zone 4, the organisatioon of the co-operation of the teaching staff, which is the central one for the school improvement from within: this is where the "heart" of school improvement beats, what keeps it alive and going. The three common factors in Zone 4 that were found in the contact schools, could be added to the framework. This will improve the model because it makes visible what is necessary to make the "heart" of school improvement function (Figure 16).

Closely connected with this is another question that was stated in Chapter 5:

> "How do the contact schools tackle the problems which they are faced with in school improvement? Do they try and solve these problems themselves, with the present teaching staff only? Or does one make use of other means as well?"

The meaning of this question was to check the statement whether these twelve contact schools were really busy with "school improvement from within": apart from the question as to where the original initiative to the project was taken, or how much external influence came to bear upon the progress of change in the school, the teachers, whether as a team or an influential group, regard themselves as those who do it, who carry out the changes, who make the necessary decisions, and who, where they find it appropriate, appeal for external assistance.

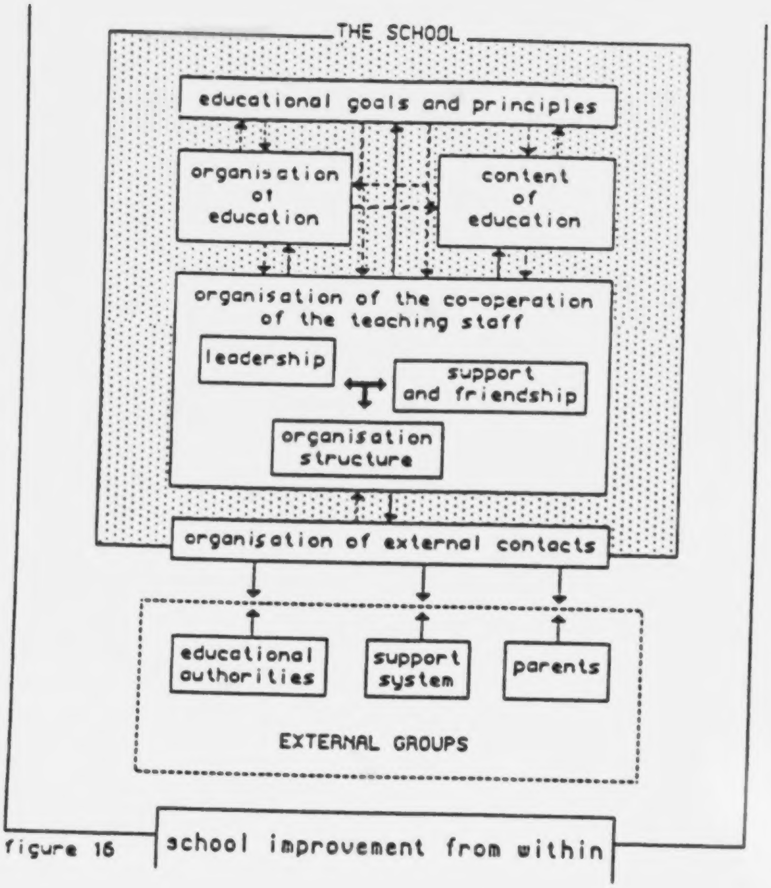

THE SCHOOL
educational goals and principles
organisation of education
content of education
organisation of the co-operation of the teaching staff
leadership
support and friendship
organisation structure
organisation of external contacts
educational authorities
support system
parents
EXTERNAL GROUPS

figure 16 school improvement from within

The data presented in Figure 14 give one answer to this question. They clearly show that the "school based approach" is the approach mostly favoured by the contact schools. If only the "school based approach" is applied, there will be the disadvantage of not making use of innovation and expertise which comes from outside the teaching staff. In the contact schools this disadvantage was reduced by employing other approaches next to the school based approach. The relevant expertise from outside the school was taken care of, particularly by utilising the "course approach" and the "consultancy approach".

Another answer to the same question comes from the data presented in Chapter 8. Fourteen topics were recognised: concrete improvements in the contact schools. Organisation structure, one of these topics, was present in all twelve schools. This means that in all schools the structuring and functioning of the co-operation of the teaching staff itself was a subject of improvement: more effective and efficient collaboration to enhance the ability of the staff to manage the school improvement.

> "Are these subjects, themes, or trends to be found, which are sufficiently common features in the contact schools, and which could be reckoned as (common) goals to strive for in school improvement?"

Well, I found the fourteen characteristics of school improvement by analysing the progress reports; and their presence in the reality of the contact schools was confirmed by the research as I reported in Chapter 8. In the discussion with the representatives of the contact schools these fourteen features became more and more goals to strive for; direction pointers instead of just objective common features. The framework of the five zones connected with these fourteen characteristics became an instrument in thinking and talking about school improvement.

Which brings me back to Winnie-the-Pooh's problem which I mentioned in the Introduction. Many teachers experience the inaptitude to put into words thoughts about important things in school improvement when they meet to talk about their profession, education. A school, busy with school improvement, develops its own "language of school improvement", words, notions, concepts that become familiar in the communication at school. It is even one of the important functions of an educational consultant to awaken in the teachers those concepts - and to provide words for them - which they can relate to their own daily practice, whereby a "language of teaching" evolves which helps them to become conscious of what they regard most important in their work.

It also enables them to communicate about it among each other. And it is only on the basis of this communication that they can come to proper decision making about the organisation of school education and its improvement.

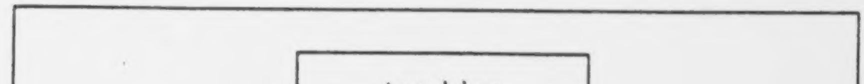

teaching
communication among teachers about their work and profession
decision making about their work
communication among teachers about the philosophy behind their work
decision making about content and school improvement
evolution of concepts to make communication possible
effect: consciousness of and reflection on teacher's own profession
effect: better team performance and commitment to ideas shared in communication

figure 17 stages in communication in school

In my school improvement work in the Netherlands I use a model of four stages that can be observed in the communication among teachers involved in school improvement. In two stages, 1 and 3, it is important that teachers at a school start to use common concepts which enables them to communicate more effectively. I am convinced that the fourteen characteristics of the contact schools provide concepts that could be used fruitfully in Stage 3: communication among teachers about the philosophy behind their work. The fourteen characteristics provide a framework of goals to strive for in primary education. Action and research are necessary to verify or refute this opinion.

"The end of the search" is the title of this chapter. And a question mark (?) is added to it. Of course! I was conducting a first and thorough exploration of a terrain in which so very much more is possible and, indeed, needed. It is important, also, within the Council of Europe, to sustain (and extend) what has been achieved by Project No 8, which encompasses much more than merely the Contact School Plan. Within Project No 8 there now exists a network of mutually well adjusted contact schools with a knowledgeable managing group and with clear-cut relations to some members of the Project Group. It would seem a waste of time, money and energy if the present expertise and the fruitfully functioning co-operation were not to be exploited further in some form or another.

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APPENDIX III

CASE STUDIES ON INNOVATIONS

by

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REYKJAVIK

1. Preceding causes

The Planning Group of Project No 8 agreed, at its first meeting (Strasbourg, 3-4 November 1983), on the need for the Project Group to be able to draw on practical and clearly presented information based on as many experiences of innovation as possible. It felt that case studies and study visits would be an excellent way of obtaining this information and asked the Secretariat to invite all members of the Project Group to bring them to their second meeting. (Malta, 27-30 March 1984):

I. One or two priority experiences in their country which could be the subject of either a case study or study visit;

II. The names and short curriculum vitae of one or two authors for such case studies.

The Project Group was then invited to:

I. Discuss and adopt a definitive outline for the case studies;

II. Decide on the procedure for the visits to the innovation projects which would be the subject of the case studies.

At this meeting the Project Group examined the proposals for case studies and identified five major areas of interest:

I. Overall innovation;

II. Child development;

III. Parents-school relationship;

IV. Micro-computers;

V. Diversity of needs.

It was decided that an "open file" should be started on each of the above mentioned five areas - member States could add proposals for case studies throughout the Project.

The Group also felt that case studies and study/school visits should not be combined. The type of operation to be undertaken should be chosen according to the type of innovation experience to be studied.

At its second meeting (Strasbourg, 6-8 November 1984) the Planning Group considered the selection procedure and agreed on the three levels of innovation which should be looked at in each case study:

I. the link between the school and external education, social, administrative institutions, ie the community level (local, regional, national);

II. the school system: the organisation, functioning and structure of the school itself, ie the school level;

III. the development of the child, both individually and in relation to other pupils or groups of pupils, ie. the child level.

The Planning Group then accepted the proposed form for the submission of case-studies and urged national authorities to use it in order to facilitate the selection process.

The following outline for the case studies was also accepted by the Planning Group:

1. Local context of the project
2. The guiding principles of the project
3. Stage of development of the project
4. Running of the project
5. Evaluation of the project
6. Transferability
7. Conclusions

II. Short description of the case-studies

Fourteen case studies from ten countries were selected by the Project Group. The authors of the case studies are from different countries, all experts in education. They were invited by the Council of Europe to visit the country and do some research work on their case.

The following pages are an attempt to compare the cases by describing the focal points in local context, guiding principles and stage of development. There are also some points from the chapters on evaluation and conclusions of each case. This summary is based on the written papers submitted by the authors.

Country	Case study	Author
Austria Salzburg Volkschule Liefering II	"Spontaneous and individual learning in free choice periods (Montessori)"	Angela Anning Senior Lecturer College of Ripon and York, St John York UK

DESCRIPTION

The project was initiated by the Pedagogical Institute in Salzburg in 1979. It is currently funded until 1989. The school is situated in a suburb where migrant workers live. Part of the school, five classes, are project classes, others regular. Parents can choose attendance at the project classes.

The long-term aim is to establish "Free choice" periods in primary schools throughout Austria (the project is being carried out in 35 schools). The immediate aim is to demonstrate that children learn more effectively during the "free choice periods" (integration of free learning phases into lessons). Relationships with parents are given a high priority. The project staff includes 5 teachers, an administrator and a supervisor. The role of teachers is changing from control to guidance.

Problem areas concern staff training, resources (Montessori equipment is expensive), school population (many children with learning and behavioural problems) and relationship between project and regular classes. Team decisions are made at staff meetings. The headteacher has the management role.

EVALUATION AND CONCLUSIONS

There were positive results in the form of a more relaxed atmosphere within the school, more variety of teaching methods and flexible organisation to meet individual needs and more concern for the well being of each individual pupil.

During the free choice periods children moved freely about the room negotiating with the teacher and other pupils for use of space and resources. The children had a clear concept of the value of the play activities. Overall the impression was that pupils moved with enthusiasm from task to task with a high level of motivation. There was evidence of social maturity in many incidents observed in free choice periods.

The project teachers have come to terms with changes in their role during free choice periods. They perceive their role as one of a guide and partner rather than a transmitter of knowledge or agent of control. Decision making is teamwork. There is some confrontation between the project teachers and mainstream staff (regular classes) in the school.

Through in-service activities the project has established a network of interested teachers throughout the city. There is great involvement by the parents in this project. There is a need for support from both local and national sources if this innovation is to be successful in the long term.

Country	Case study	Author
Belgium Châtelet Athénée Royal Primary School	"Modified timetable arrangements in French speaking Belgium"	Jean Rioult Departmental Schools Inspector, Bondy, France

DESCRIPTION

The project was developed in 1981 by the headmaster and 16 teachers at the school. The "part time teaching" project concerns 132 pupils from six 5th and 6th year classes. Part of the children are Italian (62). Socio-economic situation of parents is rather good.

The main objective of the project is to improve the integration of adults into society through the teaching of academic subjects and personal and social skills, and by the regular practice of cultural and socio-cultural activities. The objective is:

1. Learner centred: respect for bio-rhythms and promotion of all-round education.

2. Concerned with teaching methodology: general interest subjects and basic subjects are co-ordinated.

The development of the project is pragmatic: it seeks with each year a balance between traditional formal teaching and sports, socio-cultural and cultural activities. Formal tuition and discovery activities take place during the morning periods and afternoons are devoted to liberal studies. These are either compulsory or optional.

EVALUATION AND CONCLUSIONS

The part-time teaching project has shown itself to be entirely realistic, modest and workable with the facilities normally available. It encourages children to develop an independent, responsible and co-operative attitude.

Benefits for the development of the child are: 1. Physiological and psychological; 2. Increased social awareness and ability to communicate; 3. Improved cognitive learning by putting the pupils in a position to develop their knowledge themselves.

The teachers are perceived by children as helpers and organisers, whom they can trust. The headmaster has a clear and essential role as co-ordinator. Co-operation of the head and staff is essential. There are some problems because the project is only run in a part of the school. It ought to be organised throughout the school.

Parents have confidence in the school and they support the project, particularly financially. The project has links with the secondary school and one of its main advantages has been the successful integration of pupils into the higher level. Relations with universities sustain and enrich the discussions of teachers themselves.

Country	Case study	Author
Belgium Flemish primary schools	"School based review as an introduction strategy for the new style education (VLO) Project in Belgium"	Mr Pieter Schuurman Amersfoort, Netherlands with the collaboration of Mr Cees de Munnik, Mr Ferry Haage

DESCRIPTION

The innovation project, VLO, started in 1973 in the Flemish part of Belgium. The Minister of Education assigned responsibility for the project to the new-style Primary Education Committee (COB). The project is available for all schools. To begin with only 9 schools were involved but in 1980 there were 275 schools. As a part of the VLO project a new procedure: "The school-based review", SBR, or self-assessment by schools, was created alongside the innovation themes. It is an initiation programme for schools intending to take part in the project.

Main objectives in VLO focus on the following themes:

- the integration of nursery and primary schools;
- the total and continuous development of the pupils;
- care for the individual pupil;
- improved co-operation with schools, and between schools and their local community.

Schools should determine their own priorities after self-assessment procedure. Objectives of SBR are to enable schools to be better prepared for participation in the VLO project by analysing their current situation.

The phases in SBR procedure are 1. decision of schools; 2. preparation phase: training of seminars (for internal co-ordinators); 3. initial specific assessment training seminars (internal + external co-ordinators); 4. active phase: seminars, internal co-ordination, external support.

The support structure is: 1. The committee (COB), responsible for the running of the project; 2. Three central co-ordinating teams, responsible for the co-ordination of the project; 3. Regional support teams.

The preparation stage of the project, SBR, takes two years.

EVALUATION AND CONCLUSIONS

The SBR procedure is a valid method for initiating educational innovations. The assessment which precedes the actual innovation activities provides those involved with scope for joint reflection on the school situation. The procedure could also prove useful as an instrument of innovation.

Headteachers and teachers have to learn new skills and attitudes. New modes of collaboration have to be developed within the schools. The internal co-ordinator (nearly always the school head) has a central role in the preparation and implementation of the SBR procedure. The external co-ordinator should be more involved in school activities. The teachers found that both the general and specific assessment took far too long. They were eager to put innovation into practice.

Both schools and the individuals and organisations involved in support work feel a need for co-ordination and integration of the wide variety of support work. Effective co-operation between the various branches of the support network as a whole will not only optimalise the work done but also have a clarifying and stimulating effect on schools, which was the original idea.

Country	Case study	Author
Finland Vantaa Hiekkaharju, Comprehensive School	"Delegation of decision making from State level to local authorities"	Hrólfur Kjartansson Head of Department for School Education Development

DESCRIPTION

National experiment connected with the reform of school legislation in 53 schools in the country, administrated by the Ministry of Education. Hiekkaharju, school has ca 380 pupils, age 7-13, from various social and economic backgrounds. The project was initiated in 1981 and ended in 1985.

Time Resource Quota System (TRQS) emphasises the central idea of the new law, the delegation of decision making from state level to local authorities. One of the objectives was to find out if the power of decision making on teaching groups can be transferred to the municipalities and the schools, and what pedagogical possibilities the experimental lesson hour quota system opens up. Participants in the project were the headmaster, 13-15 class teachers, 3-4 subject teachers and some consultants.

The first experimental year concentrated on the general aims, then the school specific aims were introduced. From administrative aims the project has proceeded to pedagogical objectives. Courses were organised for teachers. The problems were dealt with in co-operation between the headmaster and the teachers. A co-ordinating group of 5-6 teachers and the headmaster had the task of planning, dissemination of information on the implementation, follow-up and assessment. The Municipal School Board is a key organisation in the project. It is responsible for the communal curriculum and distribution of time resources.

EVALUATION AND CONCLUSIONS

Decision making has clearly been moved from state level to local level, to the municipalities, but the real decision-making power of school level can be questioned. If decision making is to be delegated from higher authorities to local, the people who are closest to the pupils, the teachers, headmasters and parents should have a considerable part of the power.

There are positive results in the form of a more relaxed atmosphere, more variety of teaching methods and flexible organisation to meet individual needs and more concern for the well being of each individual pupil. There is more personal contact between different pupils. It is harder to judge achievement in form of knowledge.

The headmaster has a central role, he is the link between two decision-making bodies, the Municipality School Board and the teachers. Decision-making in the school is teamwork. Co-operation has made the teachers better and they enjoy their work more. The teachers need more time for planning, discussions and solving unexpected problems.

It appears that new teachers are unfamiliar with schoolwork demanded by the TRQS. It is important that teacher training institutions orientate student teachers about the changes. New teachers need assistance.

Country	Case study	Author
France Bar-le-duc	"The use of micro-computers in primary schools in Bar-le-Duc"	Prof Robert Dieschbourg, Institute for Educational Research, Walferdange, Luxembourg

DESCRIPTION

Initiative of a group of lecturers and teachers at La Meuse College of Education. The project has been operated in intermediate clases of primary schools since 1982, and is now running in 17 mixed ability classes with 25-30 pupils, mostly French. The children are taken for their computer studies to the College at the cost of the municipality. The equipment was purchased jointly by the Ministry and the municipality.

The main aim is to create an awareness of data processing as an intellectual, technological and socio-cultural phenomenon, ie, to develop 1. human and social awareness; 2. technological awareness and logistic awareness. The aim is not to open up a new discipline but to assist the child's intellectual and emotional development through the computer activities. There are three research projects:

I. Computers and money (1982-1983);

II. The young programmer of the future (1983-1984);

III. Data processing in business concern (1983-1985).

There are two main approaches:

I. The child uses programmes that he has not written;

II. The child is in a position to learn to produce a programme himself.

The experiment is carried out by lecturers from the college with the co-operation of the class teachers concerned and various institutions and people in the community ie. a bank, a business firm and a group of architects.

EVALUATION AND CONCLUSIONS

The experiments deserve high praise. The projects included preparatory work to help the children acquire a coherent and well-grounded knowledge of the subject covered (French, environmental studies with a historical, geographical, legislative and mathematical background), all revolving around the same point of interest which had a flavour of real life. The projets also included exercises which focused on data processing.

The children came into contact with subjects which do not normally form a part of primary school teaching and the approach was through direct contact with real life and through co-operation with specialists from outside the school. Influence on socialisation and communication was by working in groups on a computer. This also has a beneficial effect on the pupils' psychological development.

Main problems were that the only computers available were located in the college of education. Not all the teachers had the same attitude towards this new subject. Some classes had a computer lesson once a week, others every two weeks which was inadequate.

No meetings were arranged between the different teams taking part in the experiment and there should be more co-operation between primary school teachers and training centre staff. There was good co-operation between schools and the labour market. Parents gave their full support.

Country	Case study	Author
France Grigny la Grande-Borne	"Relations between school establishments and relations between the school and its social environment"	Mr Angel Logaro Martiny, Lecturer, Faculty of Science and Education, Complutense University, Madrid

DESCRIPTION

La Grande-Borne was designated a priority education area (ZEP) by the decision of a ministerial commission. The Ministry gives impetus to the project, collates and distributes information and makes arrangements for evaluation. The Project started in 1982 and will continue until 1987-1988. There are six primary and six nursery schools with 2,273 pupils. About 37% are immigrants from 30 countries. The unemployment rate in Grigny is 20%.

The main aim of the project is to transform the teacher-pupil and the school-neighbourhood relationships, ie create new personal and social inter-relationships, reflect on the respective roles and powers of children, teachers and parents and bear in mind social and cultural realities. The staff includes 53 teachers in the six elementary schools. An operational team co-ordinates all activities. The department inspector co-ordinates and stimulates all the teaching staff.

The main problems are learning difficulties, a high percentage of school failures. The project will carry through a series of activities to improve the pupils' educational standards, ie in the social, health and cultural fields, action on behalf of immigrants, security and urban transformation. Each school draws up its own project within the general framework.

EVALUATION AND CONCLUSIONS

There is an improvement in the quality of life and attitudes of inhabitants, as a result of the various activities proposed by schools. There is a better idea of adult participation in school life. Learning processes are improved thanks to the inculcation of new attitudes and command of language.

There has been an improvement in the reading and writing proficiency of all pupils. The children attend school less passively. Their social development is promoted by working in teams, learning to follow rules relating to certain operations, joining in performances of tasks with collective aims and collaborating in neighbourhood development activities.

There is a changed role of the head, the institution (the school becomes an open institution), the inspectorate (project manager) and in the organic conception and functioning of the learning process.

There is a change in the definition of concrete objectives. The project is expensive (new materials, special classes, teacher training) and demands great efforts of the teachers. Resistance to innovation is also a problem.

The experiment requires the school to strengthen its relations with other social organisations. Relations have been established between primary and nursery schools and certain training centres. Schools have acquired a more outward looking image. An appeal has been made to parents to help with activities, administrative authorities (national and local) have taken part in preparing social improvement plans.

Country	Case study	Author
France	"Assistance to isolated schools in mountain regions in France"	Prof Paolo Orefice University of Naples, Naples, Italy

DESCRIPTION

A project, called the Emala (Mobile Academic Liaison and Teaching Team), to assist isolated schools in rural areas, was introduced by the Ministry of Education in 1982. These areas have from 50 to 250 inhabitants and few primary schools, most of them single class schools for 4-12 year olds. In 1985 a special type, "Emala of the two Buech" emerged, adapted to local conditions. It is supported by the Departmental Education Authority and the Departmental Educational Documentation Centre.

The main aims and objectives are to combat isolation, routine and cultural impoverishment by teaching support and guidance in rural schools: technical assistance; greater variety of teaching materials; exchanges between schools; inservice training for teachers; development of interaction between schools and the environment and the elimination of academic failure.

The organisation of the project involves several educational and administrative institutions at local, regional and national level. Part of it is transport of both teaching material (in a minibus fitted out as a classroom) and the teachers and pupils (every fortnight) from the area to attend a joint working day at the most central school. Teamwork is the key to the teaching innovation.

EVALUATION AND CONCLUSIONS

The general objective of overcoming the isolation of single class schools has undoubtedly been achieved for pupils and for teachers.

The children have been able to broaden their horizons and extend their social relations. The standards achieved by pupils when entering secondary school are higher.

The teachers have been given an incentive to improve their professional performance. Their motivation has increased and there is greater readiness to tackle problems. But some teachers found it difficult to participate in the process of collaboration.

The project has succeeded in establishing a network between rural schools and to improve the relationship between the educational system and the local authorities. Locally elected representatives and communities are taking a much greater interest in the school, they see it as a basic structure for local development.

Three types of problems have been encountered, relational, managerial and financial.

Country	Case study	Author
France The Pierre and Marie Curie School, Pau	"School timetable reform in France" Pau and Le Teil	Prof Y Tourneur, assisted by P Beumier, Universite de l'Etat, Mons, Belgium

DESCRIPTION

The project started as an experiment in 1985. The starting point was a ministerial circular, signed in 1984, on the timetable reform in primary education and the development of links between the school and its local partners in education. The school has 230 pupils in eleven classes and one class of 10 deaf children. The experiment is to run in one of the classes. Close to the school are several places for sport and cultural recreation.

The main aim is to improve the quality of teaching during the school working hours and to provide consistent continuity with non-teaching periods and after school hours (workshops for drama, computers, sport, drawing, music, etc.). The objectives are related to every aspect of the primary school child's development: intellectual, physical, social, psychological and physiological.

The teacher adjusts the subject timetables to the pupil's weekly chrono-biological rhythms by timing the more demanding disciplines to coincide with the moments when their minds are most alert. Pupils in this class work from 9-12 am and 3.15 - 6.15 p.m. The class is being compared with a control class.

EVALUATION AND CONCLUSIONS

Reorganising the school timetable according to the strong and weak moments is a successful innovation and one which can readily be transferred to other schools.

The project seems to promote the pupils autonomy, generate a liking for school and good workmanship in all is forms (intellectual, social, etc.), to develop the aesthetic sense and sociability and to make reading and communicating more enjoyable.

Most of the work essential to the research in progress is being done by one teacher in co-operation with those responsible for monitoring the experiment. The project has received valuable outside support from the "school rhythms" commission. There was also great support from the parents. The teacher wants to continue the experiment next year with other colleagues in the school. There will be problems concerning the demands made on the teacher's time.

The innovation seems to be bringing benefits to the educational system as a whole and to bodies outside the school, as parents associations, the "Youth and Sport" Department, the city council and others. It has helped to promote the image of the school and make the teachers campaign better appreciated by the general public.

Country	Case study	Author
France Primary schools at Le Teil	"School timetable reform in France" Pau and Le Teil	Prof Y Tourneur, assisted by P Beumier, Université de l'Etat, Mons, Belgium

DESCRIPTION

The experiment in Le Teil started in 1985 based on the same circular from 1984 as the experiment in Pau (page 11). It concerns all classes in the five municipal primary schools. The population of Le Teil is 9,000, mainly manual workers and retired people.

The purpose of the school timetable reform is mainly to produce two major changes which will make learning more effective and so reduce the school failure rate.

1. To harmonise school work, voluntary community school and family life.
2. Reorganise the pupils' daily timetables in a manner which takes account of the present state of knowledge regarding their biological rhythms, including the best times of day for learning the most difficult subjects.

A local steering committee was set up, comprising members of the four partner groups (teachers, parents, the city council and voluntary organisations) to monitor the progress of the local experimental scheme. Within each class, sports and cultural activities are run by an activity organiser who is a member of a local association and works with the pupils under the established teacher's responsibility.

EVALUATION AND CONCLUSIONS

The success of a new scheme usually depends on the personal enthusiasm of the participants and good leadership, support and control capability. At Le Teil these conditions are satisfied.

The inclusion of sporting and cultural activities inside school working hours alters the child's conception of school work. The school has become a place where all facets of the personality are developed; a place where intense joy is experienced, socially useful activities are practised and sociability is taught through team games.

The combined instruction system has altered the general effectiveness of the teachers work with the pupils. The teamwork is having a beneficial effect on the teacher's morale. But in some of the schools not all of the teachers have applied the new timetables. They need time to get accustomed to the new arrangement.

The teachers responsible for the scheme are determined to achieve a genuine symbiosis between the school and society. They have gained local prestige, not least because of the exceptional drive of their headteachers. The group is provided with leadership and stimulation by the departmental education authorities. It also has the support of a number of parent-teachers committees. The parents take part in the school advisory services and are involved in the sporting or cultural activities.

Country	Case study	Author
Greece Athens Maraslios Elementary Schools	"The improvement of creative and aesthetic skills of children through art and drama in the city of Athens"	Prof Stig Eriksson Bergen College of Education, Norway

DESCRIPTION

The project was initiated by the Ministry of Education in 1983 and was intended to span two semesters. The educational institutions included in this projet are five Maraslios elementary schools and the Maraslios Teachers College Academy in Athens. The schools (one is for handicapped children) have 700 children, aged 6-12. They speak Greek, their culture is Hellenic and they come from middle class families. The Academy trains teachers for the schools in the local and national educational system.

The focus of the project is: "Aesthetic education interwoven with environmental education". The general aim is: "Familiarising the students with aesthetic and environmental education which has a main aim to improve the relations among students and the quality of life". The staff consists of the project administration, the Academy staff, the subject heads of the schools and volunteer academy students.

There are six activity areas (or topics) for the pupils to engage in. Once a week, for two hours, the pupils from the five schools come to a designated area and work together in one of the chosen activity groups, across grades and classes. The academy teachers function as consultants for the elementary school teachers. Problem areas are to familiarise the teachers with the philosophy of the innovation, to encourage them to initiate changes and involve them in the project, to train teachers and organise the activity groups. Many solutions have been implemented.

EVALUATION AND CONCLUSIONS

The objectives from the point of view of the topic "environment" and "aesthetic education" as a tool for improving the understanding of a theme (environment) or as a way of improving personal and interpersonal development seem to have been met. The project may gain from observing the importance of aesthetic content in addition to the topic content.

Children has become better in the areas of communication, socialisation, interpersonal relationships, tolerance and empathy. They have obviously learned about topics and themes. Certain skills should be included in the content of the arts, building on the spontaniety, improvisation and creative work of children.

The project has changed the role of the teachers, the pupil and the administration. All have become better at negotiating classroom procedures and content decisions in a democratic atmosphere. There is a lack of suitable working space and a shortage of technical equipment and materials, and too little time available to discuss the developments.

The innovation has improved:

- the co-operation between the teachers' training college and the five elementary schools;
- co-operation between the five schools;
- the contact between the Maraslios institution and the Ministry of Education, and
- the status of environmental and aesthetic education.

The innovation may benefit other schools, teacher centres and private organisations offering courses for teachers.

Country	Case study	Author
Iceland	"Co-ordinated school work in Iceland"	Prof Maurice Galton University of Leicester, United Kingdom

DESCRIPTION

The project was initiated, organised and developed by three educators: a Director of Studies from the Ministry of Education and two lecturers from the Teacher Training College. It is jointly financed by the College and the Ministry. The programme began in 1980 in five schools and since then many schools have applied to take part as the programme is offered to all schools. This case study describes three project schools with contrasting characteristics: A. a primary school in Reykjavik with 200 pupils, age 6-12, an old school, reorganised to an open plan system; B. primary and secondary school in Reykjavik with 1,200 pupils, age 6-15; C. school in a fishing village with 224 pupils, aged 6-12.

Aim of the project is to help staff within schools to adapt to the various situations and circumstances which the school faces. The main principle governing the organisation and implementation of the co-ordinated school work project is that effective change requires democratic participation of staff in the decision making process and that change cannot be imposed from outside on the school system. All the teachers and the headmaster participate in the project.

There are three main phases in the project:

1. A co-ordinator visits the school to make a preliminary inspection and form some impressions of the school work.
2. A combination of seminars and workshops (2 days) with plenary meetings and group work discussions (classroom/school/local community and physical environment issues).
3. Revisits to the school to evaluate progress (six months later).

EVALUATION AND CONCLUSIONS

Conversations with teachers in all three schools visited confirmed they felt they were in control of the decision making process. Co-ordinators were people who "helped us think things out".

The development of greater co-operation between staff must eventually lead to reappraisal of relationship between teachers, pupils and parents if the co-operation is to be effective.

Staff discussions centred around improvement of the school communication system, greater staff involvement in the decision making process, team teaching, relationship between pupils and teachers and school organisation. The programme has influenced the quality of critical thinking among participating teachers.

The project team needs support both in terms of resources and time. It is important to extend the programme by bringing together groups of participating schools to share experiences. There should be an inservice training programme for teachers who have taken part in the project who then could be co-ordinators in other schools.

Country	Case study	Author
Italy Modena Ceccherelli School	"Teaching through mass media for the acquisition of Basic Language Skills"	J Purtois and A Forgione, Universite de l'Etat, Place du Parc, No 18, B-7000 Mons, Belgium

DESCRIPTION

The project was initiated by the headmaster and the staff of the Ceccherelli school in 1980 and continued systematically until 1982. The school has 280 children, grades 1 to 6, from the underprivileged section of Modena. The families are usually from the poorest regions of the country. Most of the children had behavioural problems and did not speak the teaching language.

There are three dimensional aims: 1. the cognitive instrumental aspect; 2. the problems of failure in school and 3. the sociological dimension. Each stands for a guiding principle of the project. Objectives are: 1. to change the attitude of pupils with regard to both televised films and books with the same subject matter as these films; 2. to modify the pupils' linguistic competence and 3. to improve the knowledge, understanding and use of non-linguistic codes. The staff carrying out the project includes the headmaster and all the teachers, ie 21 adults.

The initial problem is that the pupils have an inadequate command of the teaching language. The project had three parts carried out by all pupils: 1980-81 was devoted to the theme "cinema and books", 1981-82 "television and books" and 1982-83 "books and their staging in the theatre". Books were recreated through mime, drawings, strip cartoon or modelling. The headmaster's task was to co-ordinate the various activities.

EVALUATION AND CONCLUSIONS

The general objective to encourage children to read to change their attitude towards books and films has ben attained. The school's reputation has changed to a school where the creativity of the pupils is enhanced and their desire to communicate is encouraged, regardless of the medium of communication that the children choose.

The project has had impact on the children's development with regard to cognitive learning, socialisation and social interaction. It has broadened the cultural horizon and enriched their vocabulary. They take interest in natural science and they are better in expressing themselves.

The role of the headmaster and teachers are much more complex. The headmaster is responsible for launching the project and he must lead and provide support for the teachers both in establishing priority objectives for the activities and provide instrumentation. Problems are financial, ie no subsidies from any authority, technical, ie lack of audio-visual equipment, and personal, ie in a team of two teachers both must be motivated and fully involved in the project.

There is no connection with other schools. The project seems not to have had any impact on local institutions, not even on the family. Parents' involvement was not envisaged in the project so there is little support from them, they are passive. Work with families is vital. There will be no change if only a few people in a community alter their attitude.

Country	Case study	Author
Netherlands	"Education centres" as a means of introducing innovations in Netherlands primary education	Dr Anton Strittmatter Director of the Educational Advisory Service for Central Switzerland, ZBS, Lucerne

DESCRIPTION

As a result of a history of freedom of religion, the Netherlands school system comprises a combination of Catholic, Protestant and non-religious schools which are fully subsidised by the State but enjoy educational and administrative autonomy, which is reflected in their freedom to choose curricula and teaching methods and materials.

The inevitable question is how to pursue a co-ordinating education policy in a situation where there is an "organised lack of control".

The Netherlands government has opted for a highly original solution: instead of giving up without even trying when faced with the apparent uncontrollability of the independent schools or, on the contrary, enforcing centralisation, it has chosen to appeal to schools' sense of responsibility and, at the same time, provide the necessary assistance.

The 70 or so "Education Centres" ("Onderwijsbegeleidingsdiensten") set up throughout the Netherlands over the last 15 years have a key role. In an effort to progress beyond the R-D-D (Research-Development-Dissemination) tradition, their staff are striving to combine three approaches: research, school development and innovation.

With the co-operation of the centres advisers, the schools analyse their capacity to innovate and then draw up a work plan, which they can model on one of the four standard introductory programmes suggested.

EVALUATION AND CONCLUSIONS

The strategies chosen have had the following effects on innovation in primary education:

- A balance has been struck between support for the individual teacher and the improvement of the organisation of the school or teaching staff;

- A balance has been struck between the teachers' needs to solve their problems and the need for a State policy as a driving for innovation; at the same time, local (- school) automomy has been respected;

- A tradition of co-operation and development in schools has been established. As a result, it is possible to introduce radical educational reforms, whereas in other school education systems such efforts have merely caused conflict and generated counter-productive publicity;

- The teaching staff's own capacity to deal with problems has improved;

- The consultants are highly professional.

The author continues the analysis in his study, which includes vital points which are too complex to be summarised briefly. He concludes with highly interesting information about the feasibility of using this approach in other school education systems in Europe and the limitations of the approach.

Country	Case study	Author
Norway Vest-Agder county	"Parent school relationship at the primary level of the basic school in Norway"	Prof Dr. Leopold Kratochwil, Vienna

DESCRIPTION

The project was initiated as a national project by the Board of the Norwegian Basic School in Oslo where the management responsibility lies. Five counties are involved in the project, one of them is the county of Vest-Agder where the project started in 1983. One of the many hypotheses upon which this project is based is that "The moral upbringing and education of children can only be successful, if all educators (above all parents and teachers) co-operate.

Among many aims and objectives are "for the benefit of the child with regard to his/her subjective general condition as well as with regard to his/her education or success in learning, the project aims at improving the communication and co-operation between parents and teachers".

The project is carried out by an advisory group composed of parents and teachers representatives. They have three main tasks: 1. they contact parents and teachers independently upon request; 2. they bring parents and teachers together; 3. they organise the election of parents representatives into the various bodies organisations. The local school board as well as the parents council executive committee and the headmaster of each basic school are informed about the project and invited to participate. In Vest-Adger 82% of a total of the 70 compulsory schools are involved in this project.

EVALUATION AND CONCLUSIONS

The difficulties, so far encountered in running the project have been predictable and were - on the basis of some earlier experience - indeed predicted: ie problems in altering handed-down role conceptions with the aim of developing a new self-understanding of parents and teachers.

The forms of co-operation between home and school as practised in this project, have positive effects both on the cognitive, social and emotional learning of children and young people, and their subjective mental state (hypothesis).

The forms of co-operation realised in this project represent a new role of the school and of the home, of teachers and parents. The project innovation has effects on the school administration, on the transfer problems between different types of schools and on the structure of the school organisation. There will also be changes in the curriculum and in teachers training (basic and further training).

These new forms of co-operation will also have an impact on life in the community. The parents might be more strongly motivated to fight for some changes in the school system.

Country	Case study	Author
United Kingdom Leeds	"The use of micro-computers in the primary schools of the city of Leeds	Mr A A Hermans Head of the Teacher-Training Diamanthorst, No 183, The Hague, Netherlands

DESCRIPTION

The initiative was taken by the Department of Education in Leeds in 1983. No deadline has been fixed. The project is being carried out in all primary schools in the city, 240 schools which represent a vast variety both in size and number of pupils. All the schools received a computer free of charge. A specialist team of several primary and secondary school teachers was created: "Computer Development Team".

The main aim is to help introduce computers in the curriculum. Implementation is by: Newsletters for teachers, software library, a telephone service and training courses. A curriculum study group of a dozen teachers was created to assist the Computer Development Team.

Main problems are inadequate financial resources, both for hardware and software and for training courses, lack of substitute teachers when teachers are absent of training courses. The schools must raise the funds needed. There is a need to expand the training courses. Headmasters play an active role in the project.

EVALUATION AND CONCLUSIONS

The project's participants are satisfied with the results obtained, in particular if they consider the limited financial resources at their disposal. All services ie training courses, software library, telephone and technical services are used intensively.

The children have learned to think logically and to follow certain procedures. Their motivation to learn has grown. They have developed socially by working together (two at one computer).

The teacher's role has changed from a central source and surveyor of information by solving difficulties encountered and managing pupil/teacher interaction. They must be more aware of their didactic and educational role. The headmasters and teachers in this project were enthusiastic about the possibilities of using the computers and satisfied with the pupils' concentration on their work.

There is a considerable staff shortage for the Computer Development Team. Only two teachers per school could take the training courses and they need counselling, support and further education. The teachers want computer studies integrated in the curriculum. They wonder how it can be avoided that the teaching remain unchanged and the computer is regarded as a mere "extra".

III. Summary

These 14 innovations are in many respects different both concerning content and implementation. But they all have one common goal. They are all an attempt to change systematically from existing school policy or school practice in order to improve the education of children.

The ten countries involved have different school systems determined by their culture and traditions. Some are centralised which means that the main educational goals and decisions are made by central authorities for the whole country, and the local school authorities are then responsible for their implementation.

In other countries there are some general educational laws but the local educational authorities and the schools themselves decide the school policy, the educational aims and objectives, and in some cases the schools write their own curriculum.

It is therefore of great importance to understand the school system and the local context when trying to evaluate an innovation and its implementation. What is considered an innovation in one country or a school/school district need not be so in another country or school. Thus, it is not possible to make a general comment on these different case-studies, except for the fact that the success of innovation depends on personal enthusiasm of the participants, good leadership, support and control by those responsible and co-operation between the schools and the local and educational authorities.

However, important issues which effect the success of innovation can be identified from the case studies. These issues are:

- The fact that, given certain adaptation, all the innovations are transferable to other places or countries.
- The great importance of parents' involvement in innovations;
- The leading role which the headmaster plays in all school innovations;
- The risk of conflicts if only part of the school staff is involved in an innovational project;
- The importance of the whole school personnel being motivated for the innovation;
- The paramount importance of teachers' training and re-education for the success of an innovation;

- The need for both internal and external evaluation of innovation projects.
- The need of all innovations for financial support from local or national authorities.

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All these innovations seem to have reached their main goal ie a better education and holistic development of the children, and should therefore continue to develop.

APPENDIX IV

THE PROCESS OF INNOVATION: AN EXPLORATORY ANALYSIS

by

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1. Introduction

The need for change and innovation at the primary school level is often legitimatised by referring to changes of a socio-economical nature and to changes in other parts of the educational system (Kindergarten; secondary school). We will elaborate this issue in the next section (see (2)). Policy-makers at different levels of the educational system try to translate the consequences of socio-economic changes into policy guidelines and general innovations strategies (see below).

Throughout the development of Project No. 8 and across the different activities, it became obvious that a distinction between the content (products) of the innovation and the process leading to implementation and institutionalisation is a useful one. Both are complementary, but for conceptual clarity it is necessary to keep in mind that the implementation of a new structure, a new teaching strategy, a new curriculum, etc ... is also a process which takes time. The quality of the change process has a serious influence on the final products we want to achieve.

During the conferences related to Project No. 8, issues of a very different nature have been explored (Vaduz, 1982). In almost all conferences attention is paid to the aims of the primary school and to the initial and in-service training of teachers (WCOTP, 1984; Donaueschingen, 1985). The integration of handicapped children was the central theme of a conference in Rome (1985) and the problems related to introduction of new technologies were explored in Lingby (Copenhagen, 1986). During other conferences the focus was on the continuity between pre-school, primary school and secondary school (J Petite, 1985), on evaluation procedures, on the rights and responsibilities of all stakeholders, on the role of external support structures (Noordwijk, 1984), etc ... During the Stockholm conference (27-30 April 1987) the participants explored important issues and particular problems related to the implementation of innovations at the local level. More important themes can be added, especially if we look at the different case studies (see Appendix III) and at the description presented in the context of the contact school plan (see Appendix II).

This list of themes of a different nature demonstrates the richness and the complexity of the primary school, hence the complexity of the change process. It also legitimates the decision of the Council of Europe to promote a collaboration between the member states as far as the future development of the primary school is concerned.

In this appendix we will look at the innovation process from the point of view of the local school, the school team and the individual teacher. Sometimes schools and teachers react in an unanticipated and very different way to national policies and related proposals. It is of vital importance for policy-makers and for those involved in the external support structure (inspectors, external change agents) to be aware of the ways schools and teachers perceive the demands - and as we have pointed out: often very divergent in nature - and how they handle (adopt, adapt, implement, institutionalise) these demands. One of the biggest obstacles for policy-makers during the implementation process is diversity among schools. Schools do not have the same capacity for problem-solving and change, and are not at the same stage of development. School diversity is one of the main factors affecting the final results of any school improvement policy as implemented.

Sometimes, this is a viewpoint which is considered as less important when you listen to those people who have a national responsibility. At the national level there is still a strong belief in the so-called forward mapping strategy. Forward mapping consists of spelling out the steps and processes which are necessary, from a logical point of view, in order to implement a school improvement policy. Forward mapping is usually done from the policy-maker's perspective (Van Velzen, Miles, a.o., 1985, p 254). One of the freshest approaches to policy implementation is called backward mapping. This approach emphasises the importance of including the perspectives of local level decision-makers in the development of policy. Instead of starting from the central or local policy-maker's view and describing steps to take and problems to overcome, this approach starts at the level where policy is actually implemented, in this case the classroom and school levels. Problems schools are likely to have with implementation of policy are identified and then factored into the setting of policy. The purpose is to reduce the unanticipated consequences that always accompany any policy initiative.

The interesting descriptions presented in the case studies and in the reports about the contact school plan - and also about the visits to schools in different countries along with discussions among participants during the conferences - have made very clear that indeed schools differ, that national policies can be implemented in different ways, that the local context has an important influence and that schools and teachers create very valuable situations for the development of primary school children. Taking into consideration local development does not mean that national policy guidelines are no longer necessary. Taking into consideration the local and individual potentialities, but also the limits, does not mean that the "let one hundred flowers bloom" strategy is appropriate.

A well-designed policy and implementation plan for the renewal of the primary school is needed. Policy-makers must say clearly what they think is important for the primary school in the next decades. A clear communication of the general aims and the underlying vision is mostly welcomed by people at the local level. But, developing an implementation plan implies looking for a balance between what is asked and offered at a national level and what is possible at the local level. Striving towards an acceptable balance is a vital policy rule, during the 1980s. This principle was one of the basic ideas during the Stockholm conference. The participants rejected a rigid polarisation of school-based innovations and those initiated by central government in accordance with some national goals.

2. Importance of Project No. 8

Project No. 8 started in a period where many questions about the social function and position of education in general and of primary education in particular were discussed. In his introduction for the Vaduz conference (1982) Richards underlined the need to take cognisance of the contemporary socio-economic context and of the major factors which have helped shape western European societies in general and primary education in particular. Also during other conferences some discussions were spent on the relation between the society and the aims and contents of primary schools.

We still believe that societal, cultural and economic changes are important sources for the aims of the educational system. But there is a need to rethink how we can deal with changes in and of the schools in the context of the no-growth period for education in the coming years. The multiplicity of the problems, and the weight of economic (no-growth) and cultural constraints (for example, the transformation of the present value system) reinforce that need.

According to Van Velzen and others, there are now three basic directions of changes (1985, p 28-32). The first direction is a political one; it includes the related financial and demographic crisis, the process of decentralisation in numerous countries, the accountability movement, and the debate about the quality of the school. The second direction is the social one, and corresponds with the change in the family's role, new norms, new values, new knowledge, in relation to the societal emphasis on individual participation. The process seen in western societies of giving individuals more and more personal autonomy also finds expression in growing interventions by parents and local citizens in school affairs. The third direction is that of growth in knowledge derived from research and innovation practice at the school level. For a long time, educational research has been focused either on teacher-pupil relations, with pedagogical, psychological and sociological implications, or on macro-sociological studies of the whole educational system. In recent years, there has been a change in the unit of analyses and in the focus of action. There has been a shift from the pupil to the school, with the consideration of many new variables (for example, organisational functioning, goals, capacity, values, external constraints).

From these currents in three directions - political, social and knowledge development - we can see the need to clarify the relation between socio-economic changes and the (needed) educational changes at the primary school level. Rather than trying to impose (or persuasively push) great reforms prepared by specialists, as was done in many countries in the 1960s and the 1970s (see the movement for curriculum development and learning materials in the 1960s and the comprehensive school reform in the 1970s) more attention today should be given to the very process of transformation itself. Rather than impose a decision, the objective is to actively involve the school partners (teachers, administrators, parents, consultants, pupils) in main decisions affecting the school. The new strategy for school improvement will be an amalgamation of approaches from the previous periods. Primary schools (and the teachers) will have to cope with curriculum development projects, changes in the teaching-learning process, school organisation, and pedagogical-didactical issues. The work will be more classroom and school oriented; less structural and more content and process oriented. The teacher will get more priority in the change process, without neglecting the school leader the remedial teacher and other specialists, the team. More attention will be paid to the process of strengthening the school's capacity to deal with change.

This picture of change and innovation is mirrored in several conference reports. The conference participants used other words and expressions, but across the reports one finds a serious concern for clarity about the role of the primary school in a rapidly changing society, but also a concern for the implementation of valuable innovations at the school and classroom level.

In summary, we can take it for granted that there will always be pressure for educational changes. And as was stated in Han-sur-Lesse (1983) a continuous analysis of societal changes in relation with political decisions about educational innovation is a very important task for these who are responsible for a national education policy.

It is not only important for those who are responsible at the national level, but also for the leaders at the regional and local level. How the different policy levels collaborate or relate to each other will be explored in the next section.

3. Types of policy decisions and the need for a meta-innovation policy (see Han-sur-Lesse, 1983; Noordwijk, 1984).

The translation of the consequences of some societal changes into policy decisions can occur at least in two different ways. We will first describe very briefly these two types of policy decisions. Next, we will pay attention to the necessity of an overall or meta-innovation policy.

In some cases the consequences of some societal changes or developments for the primary school are clear and very easy to deduce. Consider the following examples. Nowadays many adults and also youngsters are involved in contacts of an international nature. So it is important to make decisions about the introduction of a foreign language as an important learning domain for the primary school. Or in many countries there are a lot of traffic accidents. So, decisions have been made about the introduction of traffic education for pupils of the primary school.

But there are other cases for which the consequences for the primary school are less obvious. For instance, most teachers accept the importance of the affective domain in the development of pre-primary and primary school children. But it is not clear what kind of innovations we need in order to be able to achieve a balanced education. Or we will accept the necessity to foster creative thinking. In our complex society, we all are confronted with unexpected problems which should be solved in a creative way using the existing resources. But here too, it is difficult to present the most appropriate educational solution. Or there are some indications that the use of the computer can improve the creative writing abilities. Nevertheless many problems have to be solved before the implementation of an appropriate software is possible.

Examining some recent trends in several countries, one comes to the conclusion that governments or policy people sometimes pay more attention to the consequences which are clear and easily translated into rules and structures and less attention to the more complex consequences for which a more balanced long-term policy is needed.

Related to this remark, one can distinguish two innovation policies of a very different nature. The first one is a so-called "additive policy". The primary school is considered as a big box which can be filled with some particular innovations. Every year another innovation is proposed. Every new Minister of Education wishes to introduce an innovation. An additive policy creates unclarity for the parents and uncertainty for the teachers, the principals, the inspectors, etc ... One can be sure that accidental nongrounded decisions which change frequently over the years will lead in most cases to "non-implementation".

In order to realise fundamental changes in the primary school, we need a coherent "long-term policy". Priorities should be formulated as clearly as possible.

During the Noordwijk conference, this need for a meta-policy was explored and analysed in a more detailed way.

It is typical for a long-term and large-scale innovation project (as for example the introduction and implementation of a "new primary school") that many schools, teachers, parents, principals, consultants and pupils are involved. It is also typical that the implementation and institutionalisation of a large-scale project need an explicit policy on different levels (national, regional, local).

In other words, in large-scale projects, various decision-levels and various groups have to trace out a concrete policy in a more or less co-ordinated way, ie problems of an "overall policy" are at stake. National policy, regional policy, local policy are levels on which decisions are made and can be made. In this way, we can always refer to a group that is situated above and a group that is situated below. The "top-down model" (or "centre-periphery model") is consequently not a question of national policy versus local school autonomy. Even in the local school this model occurs: think for instance of the possibility of the school leader deciding to participate in a large-scale project in a relatively authoritative way. Furthermore, it is important to become aware of the fact that on the same level groups having different interests at heart, can affect the actual development of a large-scale project. The diversity of interests can lead to conflicts that have negative influence on the implementation of the innovation. Meta-policy demands a significant change in modes of operation at all levels of the educational system.

The central idea is that on each single level, there ought to be a clear-cut policy and it would be meaningless to favour boundless localism in a period in which budget cuts result in a number of limitations. But as we noted before, policy on each level and within each group calls for a kind of "overall policy", which according to Schön can be described in a number of simple rules (Schön, 1981).

1. Those "above" must learn to name the "themes" of policy change and to create conditions conducive to initiatives for those "below". The integration of nursery-primary schools can, for instance, be regarded as a policy theme. If this theme is considered important, then it is equally important to create conditions by which other levels (a local advisory centre, a local school) can develop this theme (or implement it). A "theme of policy" names the domain in which initiatives are called for, but leaves the specification by which performance is to be judged upon.

2. Those "below" must learn to take initiatives in a thoughtful way, that is, by reflecting on the conditions and content of their own practice. It seems to us that developing a school work plan (school curriculum) in a joint effort is an example of the need for an explicit policy plan (coming from below). Of course, a local school curriculum which stays in the safe solitude of the school leader's study, does not act as a dynamic source for the local policy.

3. Those "above" must learn to describe, appreciate and evaluate the initiatives in practice undertaken by those "below", especially when evaluation cannot be done in relation to an established policy but only in relation to a "theme of policy". We believe that we face a problem here that - when speaking of large-scale projects - is not sufficiently recognised. A school leader (above) will have to develop criteria and learn how to apply them to judge the work done by his team (below). Not so many criteria that can be described in terms of concrete activities taking place or not, are at stake here, but rather criteria to be described in terms of a joint judgment of activities in relation to the traced policy. The same question - namely on what criteria and in which way do we judge certain developments - is applicable to regional centres versus a group of schools, to national centres versus schools or regional centres one co-operates with, to national policy versus regional developments, etc ...

• 4. There is a fourth rule worthwhile considering: those "above" must learn to play the roles of broker, facilitator and disseminator of local learning.

The foregoing ideas can be summarised by saying that:

- those "above" and "below" must learn to recognise and reconcile the competitive claims of innovation and differentiation of practice, economy and bureaucratic efficiency;
- those "above" and "below" must learn to function in a mixed system which combines distributed local initiative with centralism in relation to some key principles.

These are general ideas and principles. It is nevertheless worthwhile to accept the fact that the introduction and implementation of large-scale projects is a very complicated process. In particular, it is important to be aware of the possibilities and limits of an ongoing negotiation process between different policy levels. Those of us who advocate meta-policy should recognise and plan for the complexity of the innovation we are preparing.

Similar problems were explored during the Stockholm conference. The participants came to the conclusion that large-scale innovations, nationally introduced have sometimes a limited impact on the teaching activities in the classrooms. Therefore certain principles for gaining the co-operation of teachers were spelled out. Policy-makers, at different levels, should create a positive climate whereby teachers feel they are valued by the community and their ideas and interpretations of the general goals make an important contribution to the improvement of the school system in general. It is also important to control the pace of change so that the apparent demands upon teachers are not so great that they induce opposition to the project. Policy-making at different levels further implies that there is a need for leadership at different levels. In general, from the conferences in the context of Project No. 8, we have learned that enhancing the quality of leadership at various levels within the educational system is necessary.

In summary: ongoing policy activities at the central level are a necessary condition for implementation and institutionalisation of a large-scale innovation project as the renewal of the primary school. But at the local level the central policy must be complemented and supported by a set of local policy activities.

4. Renewal of the primary school and local reactions

In the introduction of this appendix we pointed out that we will explore the innovation process from the point of view of the local school. How do schools react towards new demands? How do they reorganise their structures and roles in order to implement new aims, new expectations? In other words: how does a local school change confronted with an "additive" and a "long-term" innovation policy?

These and other issues can be explored by describing first the nature of most of the innovations presented by national authorities, and second some of the organisational reactions one can observe in local schools.

In Han-sur-Lesse (1983) the participants came to the conclusion that most of the projects related to the renewal of the primary school can be considered as large-scale innovation projects. A large-scale innovation project is characterised by its multidimensionality; a number of important objectives must be accomplished simultaneously and coherently. Each innovation, as part of a reform, points to significant objectives. This striking fact for large-scale innovation projects lead to the observed practice at the school level of (justified) reduction. As a matter of fact, there are a number of indications which show that the local school and the teachers spontaneously set themselves certain reductions. Thus we observed that many renewed primary schools (in Belgium) were only engaged with one or two innovations out of the whole bundle of innovations (Van den Berg and Vandenberghe, 1987).

Taking into account this multidimensionality and the related multiplicity and multiformity of objectives, it is not surprising that participants on different levels often divergently emphasise different aspects of a large-scale project. For example, it is not excluded that external change facilitators (eg inspectors) stress other goals or activities than principals. Teachers pay attention to consequences related to their classroom practice and are less interested in activities directed for example at team building. These differences can result in a relatively wide gap between the original plans, the decisions in a local school and the actual implementation in a classroom. In other words, projects are filtered, stresses are laid and various choices lead to different realisations.

Why is it important to explore and to describe this large-scale character of a project?

First: it gives a good description of the content and the nature of educational innovations in most of the west-European countries. Second, the complexity of a large-scale innovation leads to difficult questions, in particular if one tries to evaluate the outcomes of a change effect. It is wrong to conceive a large-scale project as a clear and ongoing decision process. Sometimes there are a lot of activities going on, without a clear conceptualisation. Over the years the same goals are presented differently. It is not unusual to observe a shift in national priorities. As a consequence teachers do have a lot of questions about the meaning of the innovation. Third, it is also clear that it is very difficult to assess the level of implementation at school and classroom level. The general goals of a large-scale project combined with the local reactions (see below) lead to very different configurations.

Given the characteristics of a large-scale innovation project one can assume that an average school will develop an "organisational reaction". In other words a local school will develop a local *innovation policy*. This means that the nature and the quality (related to the degree of implementation of an innovation) will differ from one school to another (see chapter III for four types of local innovation policy).

5. The role of the teacher

On several occasions during the conferences attention was paid to the pre- and in-service training of teachers. How to prepare teachers for innovation and how to support teachers implementing innovations are crucial questions.

The implementation of an innovation project at the local school level implies, among other things, that the school staff is able to design an implementation plan adapted to the local manpower and other sources. These tasks require co-operation among teachers and the ability to decide collaboratively. Yet in most countries today very little emphasis is placed during the training period on working collaboratively. Therefore, as was underlined during the Stockholm conference, there is a need for training programmes where the trainers, the students and also, at a later stage of the training, the supervising teacher, can work collaboratively in the classroom on "problem solving activities". If trainers, during their pre-service, are supported in activities such as observation of a colleague, discussions about their teaching behaviours, using in an appropriate way data feedback, etc ... one can expect that in their professional life these teachers will be able to work as members of a team.

School personnel, particularly teachers and principals, are a vital link in school improvement efforts. At the classroom level teachers are significant, if not the most important players. It is clear that change will not take place without the support and the commitment of teachers. And according to Crandall, "failure to understand the relationship of teachers to the school improvement process can result in a corresponding failure to improve the level of education provided by our schools" (Crandall, 1983, p 6). In other words educational change and improvement depend on what *teachers think* and *do*. This is a very simple statement. But an analysis of the process-side of this statement make clear that simple statements can be very *complex*.

If the teacher plays a central role in educational change and school improvement, then it is important to consider the working conditions as a main determinant of the change process. We assume that effective educational change in practice cannot occur without improvements in the teacher's work life (see WCOTP, 1984).

After having analysed these conditions, Fullan concludes that they have deteriorated steadily over the past two decades (Fullan, 1982, p 107). It is a fact that teachers are *valued less* by the community and the public than they were even a *short time* ago. The teaching profession is considered as a clear cut and flat career (at least in the European tradition). *Teacher stress* and *alienation* from the profession appear to be at an all-time high. The fact that a lot of teachers want to leave the profession is a clear indication of the alienation phenomenon.

Making an analysis of the teacher's role in educational change implies a deeper understanding of the subjective world of teachers. It is a necessary precondition for engaging in any change effort with them.

During the Noordwijk conference (1984) the links between initial teacher training, in-service training and the way local advisory centres work with the local school team were discussed in depth.

During the initial teacher training, a good balance should be found between subject-training and the pedagogical-didactical training. To learn how to work in small groups was considered as a very important objective.

Particular attention should be given to a well-designed plan for continuous in-service training. Some of the participants underlined the need for compulsory in-service training. Furthermore a school-focused in-service programme seems to create a lot of opportunities. Teachers can diagnose and formulate their own (or school-related) problems. They can, in collaboration for instance with the staff of the local or regional advisory centre, develop an implementation and an evaluation plan.

In other words, concrete teacher-specific and ongoing training is necessary. The most effective training experiences are those that involve training at several points in time. Furthermore, external change facilitators or principals or, in general, those who are responsible for the in-service training of teachers engaged in change projects, should offer relevant, practical advice on an "on-call" basis. On-the-spot assistance seems to be very effective. Regular project meetings, organised in the school, provide an opportunity to share success, problems and suggestions. They are also a vehicle for improving staff morale and cohesiveness, important for effective implementation.

Research on in-service training has made clear that for maximal effectiveness, the following components should be included: presentation of theory or description of skill or strategy; modelling or demonstration of skills or models of teaching; practice in simulated and classroom settings; structured and open-ended feedback (provision of information about performance); and coaching for application (in class assistance with the transfer of skills and strategies to the classroom)(Joyce and Showers, 1980).

The success of a plan for in-service training is also influenced by the co-operation between the national authorities and the unions.

In relation to the in-service training and the collaboration between schools and an external support structure, it is important to explore factors which emerge during the implementation of an innovation and which encourage or discourage continued participation. If successful implementation occurs it is in large part due to the efforts of teachers. But why (and how) are these changes being brought about?

We find an answer to the question in a paper by Dawson (1981). She reports data from an intensive one-and-a-half year study of educational change projects in five schools. The five schools participated in basic skills or career education projects developed collaboratively by the schools and a team from a regional educational laboratory (Research for better schools). We will compare these data with findings of the DESSI study (a study of dissemination efforts supporting school improvement)(Crandall, 1983).

First Dawson found that many participants became *committed* during the implementation. For instance, they became *convinced* that it was important to increase student engaged time (in order to increase the basic skills) or to teach career education. Some other participants developed a sense of having invested so much in the projects, that they could not withdraw without feeling that their efforts had been wasted (Dawson, 1981, p 15). Also Crandall in the DESSI study discovered that commitment developed after implementation, after teachers were actively engaged in using a new practice (Crandall, 1983, p 7). But he emphasises the fact that teacher commitment has a positive influence in *interaction with other factors*. So, "we found that with clear, *direct leadership* from building and central office administration, *training by a credible person* in the use of a *practice that was known to be effective*, teachers tried the new practice, mastered it, saw results with their students, and developed *a strong sense of ownership*. And this with little or no early involvement in problem solving selection, or decision making" (Crandall, 1983, p 5, own italics). Increasing commitment during the implementation of a change project refers to the fact that for teachers involved the innovation gets more and more *meaning*. From working with the innovation, from discussions with other teachers, from positive and negative experiences, the underlying principles become more and more clear: they find out what the innovation means for their daily teaching activities.

Increased internal communication is a second factor that influences positively a continued participation in a change project. According to Dawson many teachers experienced the increased interaction among teachers and between teachers and administrators as very supportive. During the project meetings, teachers had the opportunity to share ideas about students reactions, about the use of materials, about teaching strategies, etc... Participation also increased people's knowledge of other classrooms, particularly in the basic skills schools (Dawson, 1981, p 15).

The importance of interaction among teachers is confirmed by Fullan. "Within the school, collegiality among teachers as measured by the frequency of communication, mutual support, help, etc ... was a strong indicator of implementation success. Virtually every research study on this topic has found this to be the case ... Significant educational change consists of change in beliefs, teaching style, and materials which can *only* come about (except for the odd religious-type conversion) through a process of personal development in a context of socialisation" (Fullan, 1982, p 121).

Third: teachers' attitudes toward participation is influenced by perceived relationships between project and school or classroom goals (Dawson,, 1981, p 16). The experience that a proposed innovation can solve a student problem will influence positively continued participation. Teachers feel that they can master a situation; they experience a sense of efficacy. A growing congruence between the innovation and the school and classroom situation, together with a belief that the teacher can help even the most difficult or unmotivated students, have a positive effect on continued participation (see also Berman and McLaughlin, 1978, p 32).

Fourth: all teachers know that the costs of participating in a change project are often very high. Participating implies extra meetings, extra preparation time, use of new materials, etc (Dawson, 1981, p 17). In many cases personal costs are high and student benefits for instance are low. That situation will mostly lead to non-implementation or at least a lot of problems will arise. A change facilitator can solve these problems by giving concrete and continuous help. Direct and clear support from the principal is also important (Crandall, 1983, p 9).

It becomes clear from the foregoing discussion that change in educational settings is possible and that teachers are prepared to engage in change process if supportive conditions are created.

We will end this section by exploring some practical implications (Vandenberghe, 1984). Teachers engaged in a change process have to go through a learning process. They have to learn new skills, they have to accept new principles, they have to try out new materials, they have to master new insights, etc... Innovation must be considered as a process and not as an event. From that point of view a permanent clarification of the innovation is a pre-eminent activity during the implementation. This is certainly the case with large-scale innovations, as appears from a number of research results. "... highly structured innovations involving only a small amount of change (such as computer-assisted instruction) required specificity before implementation, but less structured innovations (such as open education) achieved specificity during implementation ...".

Moreover, Berman and McLaughlin's case study analysis of unstructured innovations suggested that achieving specificity involved learning-by-doing activities in which individuals become clearer about the project's philosophy as well as its operational objectives. In other words, clarification is a process whereby each user develops his or her understanding of - and belief in - the innovation as it evolves during implementation. Insofar as staff become clear in their own terms, specification can occur almost as a post hoc codification of shared understanding among participants (Berman, 1981, p 273).

Individual teachers are very important players in the innovation game. Nevertheless we should keep in mind that they are members of an organisation. In other words: their role is complemented by other roles such as the principal, the central office administrator, the inspector, the change facilitator, the parents, the pupils, etc... We have already underlined the importance of an organisational structure which creates opportunities for discussions and professional activities among teachers.

Coz found that principals who were active in successful school improvement made it clear to all instructional staff that the successful implementation of the innovation was top priority. There was a clear communication towards the teacher about the importance of adopted innovation. These principals were also able to make available all the requisite materials. They give teachers time to actually use the new practice through help with classroom scheduling and through facilitating schoolwide scheduling. In other words structural changes supported the individual efforts. And teachers, parents and central administrators were working in a realistic time frame and did not feel pressured by premature evaluation (Cox, 1983, p 10). In summary consideration of change, discussions about the underlying principles, implementing new practices are experienced as a regular part of the job.

Lastly, it is important to look at some characteristics of an effective in-service training. From the Rand studies (Berman and McLaughlin, 1978) we already know that concrete, teacher-specific and on-going training is necessary. The most effective training experiences are those that involved training at several points in time (see also: Louis, 1983). Further, external change facilitators or principals - or in general: those who are responsible for the in-service training of teachers engaged in change project - should offer relevant, practical advice on a "on-call" basis. On-the-spot assistance seems to be very effective. Regular project meetings organised in the school provide an opportunity to share successes, problems, and suggestions and is also a vehicle for building the staff morale and cohesiveness important to effective implementation (Berman and McLaughlin, 1978, p 29).

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Addendum to Appendix IV of the Final Report
THE MAIN CURRICULUM RELATED CONCLUSIONS OF PROJECT NO 8'S WORKSHOPS AND SEMINARS

by

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1. DEMANDS

Growing public interest in school as a means to solving problems of society, had led to primary schools being held accountable in a manner and to a degree not previously encountered.

Increasing public expectations of primary schools are leading to an ever-broadening range of curriculum demands, for example health education, microtechnology, consumer education, education for industry and so on. Teachers are confronted with all these new demands while, of course, they still have to deal with long-established but no longer sufficient, "Basics".

Society demands, but schools cannot just do what they are told to do. Schools have to choose and decide what can be taught meaningfully to their children and in which way this has to be done.

society
(development, changes,
trends)

demands "School has to ..."
"School has to ..."

"School is able - in an effective way - to ..., to, ..., to ... answers

school
(innovation, improvement)

We have to be very clear about what can be expected from primary schools and in which way these expectations will be fulfilled. This refers to the CONTENT of the curriculum and to teaching methods and to the educational APPROACH.

2. CONTENT

The workshops and seminars of Project No 8, on many different subjects, were organised in the perspective of the "new primary school". Next to many more concrete topics, in each workshop or seminar there was quite some discussion on the objectives of this new primary school. In most of the reports conclusions on this subject are made and they all seem to point in a similar direction.

It is clear that it is not productive to use such terms as "new primary school" or "modern education" as if this were opposed to "traditional primary school". A lot of commonly used content and approach of the "traditional school" has to stay and forms part of the content and approach of the "new primary school": the strengths of primary education which continue alongside the innovation. Some warning is heard about "not throwing away the child with the bathwater".

However - having said that - "new" objectives for primary school are mentioned. Most reports come up with conclusions which formulate that the primary school should have the following objectives:

- ensure, apart from the acquisition of the fundamental skills, the awakening and development of all skills, attitudes and knowledge necessary for the development of the child's capabilities and his well balanced life in society;
- lay the foundations of knowledge and skills in order to ensure the success of future studies;
- teach a child how to learn and prepare him for life-long progress;
- help the child acquire an active attitude towards problems and help him adapt to new situations quickly;
- promote a critical attitude towards events and the media;
- develop his reflective ability and his curiosity, self-reliance, creativity, a sense of responsibility and eagerness to learn.

These kinds of objectives ask for appropriate content in the curriculum: subject matter than can serve as a means to reach these goals. In the workshops and seminars of Project No 8 some of these subject matter areas are mentioned. It must be clear however that only part of the total curriculum of primary education was covered by the workshops and seminars which were organised. Of course this part was well chosen: the part where much innovation takes place; but it still remains only a part of the curriculum.

Important subject matter areas (suitable for achieving the earlier mentioned objectives) are:

- subject matter that gives opportunity for learning problem solving skills, thinking strategies and information selection skills;
- subject matter that stimulates international thinking;
- subject matter that stimulates taking responsibility for the environment.

SUBJECT MATTER THAT GIVES OPPORTUNITY FOR LEARNING PROBLEM SOLVING SKILLS, THINKING STRATEGIES AND INFORMATION SELECTION SKILLS:

1. Mathematics

The aims of primary mathematics are best seen as experience which the school should provide in order that the pupil progressively gains confidence in viewing, discussing and representing real life situations in mathematical terms and in this way is able to solve problems. This will provide the soundest base for further mathematical development in subsequent stages of education.

It is important that pupils do not merely learn skills in a rote fashion, but that he or she can reason mathematically and transfer skills to new circumstances. To achieve this end, effective use must be made of appropriate apparatus and practical activities.

2. Informatics

To ensure that technological changes are being initiated as part of a democratic process, it is necessary to educate children in the use of new technology. But technology education is more than computer education; children must of course be "computer-literates", but at the same time it is essential for them to be "picture-literates". Education must enable children to participate actively in social and cultural development, using their acquaintance with computers, their knowledge and their skills.

An important set of skills children must require in dealing with the new technology, deals with data collection (data bases), problem formulation and research skills, theorisation and conceptualisation of ideas to be tested through the technology. Present software and technological teaching may not be dealing adequately with these skills which are going to be so critical. Teachers may not know how to impart these skills to children and to use computers effectively to demonstrate and teach them.

3. Media studies

There is an urgent necessity to devote more time and professional discussion to the sheer impact which "visual information from the global village outside" will inevitably have on young and old alike. "Information" will penetrate easily via TV network and video to the remotest rural school and community, but ironically this information if uninterpreted and discussed rationally will be in no sense education. Along with the need to generate an awareness of local community and preserve its traditional values will go hand in hand with a duty upon the school and the teacher to react critically, maturely and rationally to the mass of unformed "world information" pouring in - and to produce people who will adopt a thinking attitude to other areas, peoples, cultures, issues and the like.

In each country, therefore, priority should be given to how, within their own curricular structures and practices, media studies (or a media dimension in the curriculum) at least can be "built in" either as an integrated provision, as a new subject, a new component of existing subjects, or in any similar way.

4. Science and technology

Science is concerned particularly with increasing children's understanding of the natural world but also of the world as modified by human beings. At the primary stage it seeks to develop skills and competencies associated with science as a process of inquiry: these include careful observation, selection of observations for further investigation, identifying patterns and expressing them as generalisations, suggesting explanations for patterns and, perhaps uniquely, devising and carrying out experiments to test suggested explanations for the patterns observed.

Links between science and technology are particularly close at the primary school stage, where scientific knowledge and understanding can be harnessed along with other human and material resources to solve realistic practical problems. Such practical problem-solving often results in the design and making of artefacts to satisfy particular human needs. Like science, technology is concerned with a range of process skills: these include identifying problems which need solutions, designing, making, testing, evaluating and modifying. Skills such as communicating, interpreting written or graphic materials or handling equipment safely and effectively are common to both areas. Through technological activities, children's understanding of concepts relating to materials, energy, structure and control is developed; the parallels with conceptual understanding in science are evident. Equally, the range of attitudes developed through science are applicable in many respects to technological activities. Because of their close links there is a strong argument that science and technology in the primary school should form, and be experienced as, a continuum.

5. Social studies

Besides learning skills to solve material or rational problems, children must learn skills to attack and resolve emotional and inter-human problems. A special part of the curriculum of primary education must be dedicated to the development of these skills. This is one of the areas in which there is very little experience and research available. Perhaps this could be the base for a new project on this part of primary education for the Council of Europe. Skills involved in this area are (amongst others):

- social perspective taking (the ability to look at a social problem from the perspective of both the self and others);
- alternative thinking (the ability to think of more than one possible strategy for resolving a problem);
- consequential thinking (the ability to anticipate the consequences of personal decisions for oneself and others);
- communication (the ability to verbalise ideas, needs, motivations and strategies in a way that is comprehensible to others);
- evaluation (the ability to evaluate decisions).

SUBJECT MATTER THAT STIMULATES INTERNATIONAL THINKING

6. Second language

It seems entirely approriate to introduce a language other than the mother-tongue in primary education, to serve as an open door for children to people, circumstances and events outside their home country in Europe and the rest of the world.

The introduction of another language will broaden the perspective of moral, cultural and social training for children.

The second language should not be an isolated part of the curriculum. Specific aims in primary education:

- ability to express oneself in a region or country where a foreign language is spoken;
- providing insight into the people's living conditions and customs;
- developing tolerance and respect for differences, through comparing one's own country with that of another;
- reducing selfishness and prejudice towards different people (different regions or countries) and even towards one's own people (compatriots);
- developing a child's acquaintance with a foreign language and with his own.

7. History and geography

Some parts of the curriculum of primary schools, especially history and geography, carry in itself the risk of nationalistic, eurocentric or ethnocentric approach. Or - to put it in a more positive way - these parts have great possibilities for helping the child to develop insights and skills that can bring him to international understanding.

If international understanding is to become an important component of primary education, then teachers, administrators and curriculum planners ought to become aware of the contribution geography, history and other subjects, alone and in association, make to the education of young children.

To begin to determine criteria for selection of content, it is important to make the fundamental distinction between information gained firsthand and information gained secondhand. Equally important is the contemporary relevance of the content to the everyday lives of children.

It is not difficult to construct a list of foreign peoples and places which may have close associations with primary school children.

Concrete evidence of associations can be found in the form of postage stamps, souvenirs of foreign holidays, foreign items on the shelves of supermarkets, in the classroom, in the street and in the home. It is these concrete, tangible objects which can be used to focus children's interest, stimulate their curiosity and capture their enthusiasm.

Teachers must use these concrete experiences as a foundation for studies which will permit pupils to extend their knowledge, improve their skills and modify their attitudes. Teachers must have a good understanding of how maps, globes, audio-visual curriculum resources and printer materials can be used effectively to facilitate pupils' learning.

SUBJECT MATTER THAT STIMULATES TAKING RESPONSIBILITY FOR THE ENVIRONMENT

8. Environmental education

One of the tasks of primary education is making children aware of the area close to where they live. Progressively they can acquire a range of knowledge and build up useful information.

This must enable them to achieve real, active understanding of the environment, thus the child moves from indifference to an awareness of responsibility.

This underlines the desirability of using the total community as an education resource in providing the children with an awareness of their local area, heritage, culture, language, etc. This implies a radical reappraisal of the role of the teacher as the "orchestrator" of such diverse resources into a meaningful educational/learning experience.

Environmental education is necessarily situated in the present, but implies knowledge of how to use and study the past. So it is useful to identify transformation and developments, but also permanent features, in a restricted space (a neighbourhood).

Environmental education is progressively inter-disciplinary and, in particular, it stresses aesthetic and architectural dimensions and eschews hasty judgments, prejudices and simplistic slogans.

As soon as conditions are favourable (preparation, children's age, school team, parents' help, consultation with councillors and the administration), education about the environment will involve practical activities (exhibitions, displays, slide shows, photographs, reviews, posters in addition to visits, project management and implementation, farms, gardens and walks). This is education for the environment.

3. APPROACH

As stated in the previous chapter, the main objectives of primary school is, to ensure - apart from the acquisition of the fundamental skills - the awakening and development of all knowledge, skills and attitudes necessary for development of the child's capabilities and for his well adjusted life in society; in particular to help the child acquire an active attitude towards problems, teach him to learn and prepare him for lifelong progress.

This does not only ask for appropriate content in the curriculum, it asks for a special kind of approach too. In many workshops and seminars the need is stressed for an approach in which the teacher gives more time to setting up learning processes, rather than basing himself exclusively on results: interactive learning, learning which emphasises activity and the immediate return of information, rather than written work; learning which needs the development of open-ended investigative styles of working in schools; learning which stimulates the development of problem solving strategies by children.

The success of the use of this approach in schools depends in the first place (if extra-school factors are excluded) on the teacher's classroom skills:

- his ability to organise open-ended learning activities;
- her capacity to observe the child's actions;
- his ability to help children to put into words their problem solving strategies and their findings;
- her capacity to give children feedback and hints that help them to improve their problem solving or that solve their problems;
- his ability to create a good relationship with the child (to have a healthy basis for teaching).

With all these demands on the teacher it is obvious that in every report on workshops and seminars the need for support of the teacher is expressed, especially by providing him with effective ways of in-service training.

In connection with the concept of interactive learning some remarks ask for attention:

- A better continuity between pre-school and primary education is necessary to ensure continuity in development of children and educational practice. The fact is mentioned that children who have been given a pre-school education generally obtain considerably better results in primary school. The traditional methods of nursery school are very adequate, provided that they are reinforced by a series of number, seriation and classification activities, oral expression exercise, activities with books, etc.

- The importance of play is stressed, particularly with reference to the acquisition of the knowledge of the rules of the game, the ability to accept a fixed framework and to plan the spatial and temporal sequence of a set of socially modified actions (eg the train journey play, the doll's tea party play, etc.) with the child able to fill the empty spaces with his desires, experiences, and personal perception.

- The awareness of the fact that the teacher becomes more and more important to the children as a model with regard to aspects of their socio-emotional development, calls for teachers with highly developed communication skills: clear sending, listening, conflict solving. This also calls for activities that provide children with the opportunity to learn how to co-operate, to communicate and to decide.

- A lot of learning activities can be related to the environment. It is of great importance that children get the opportunity to relate the knowledge, insights, skills and attitudes they learn in school to their environment: especially the real world of the children. This will enhance the applicability of their present learning results in their future life.

- The teacher as an assistant: in the transmission of any body of knowledge, it is vital to take account of the existing pre-concepts, through negotiation with the child, helping him to understand the reason for choosing a particular strategy and interpreting the mistakes made, instead of obliging him to assimilate passively truths which are not his, without any opportunity to verify or disprove his own hypotheses. The teacher therefore finds himself here in the role of assistant, or expert in the learning process, rather than that of the technician who compares input with output.

- Interactive learning and problem solving have implications for active class-room organisation:

  . These approaches are both time and resource intensive. Children must be allowed time to check, to puzzle things out.

- Children need to be "trained" to cope with the demands of activity based learning. This includes building independence and responsibility.

- Every child must be given this experience, therefore it must be carefully planned as an integral part of the class work and not restricted to "when you finish your work".

- Teachers need to be highly skilled in classroom management to be able to organise an active classroom without losing a lot of time with dealing with discipline problems.

- The effort the child has to make to understand what is expected of him should in turn lead the teacher to seek a better understanding of how the child perceives the body of knowledge to be acquired and of the strategies he applies. In every interactive situation the child must form such definitions in order to give himself a better foundation on which to base his actions and formulations, according to the image he has formed of the partner he is dealing with (teacher or peers) and of what the latter might expect of him. The negotiation of a teaching contract between teacher and pupil can be a very fruitful way in helping the child with this.

The teacher encourages the pupil to think about the task proposed and the objectives to be reached. The pupil is then faced with the challenge: "Do you think you can reach this objective and do the work set"? This is certainly one way of creating the "emotional arousal" necessary for every learning process.

The role of the teacher will then be to discuss with the pupil the ways of reaching these objectives, to define the type of action and to define, in advance if possible, the form which testing and follow-up will take (assessment with a didactic content and, if necessary, with the function of a summary), which must be clearly explained to the pupil.

4. SUMMARY

Ever-increasing public expectations of primary schools are leading to an ever-broadening range of curriculum demands. Besides this, teachers still have to deal with important but no longer sufficient "basics" (reading, writing, arithmetic).

Workshops and seminars, organised in the context of Project No 8, among other things were engaged with the questions:

What can be expected from primary schools, and in which way can these expectations be fulfilled?

To the "what question" the following answers are mentioned in Chapter 2:

- subject matter which gives opportunity for learning problem solving skills, thinking strategies and information selection skills (mathematics, informatics, media studies, science and technology, social studies);

- subject matter which stimulates international thinking (second language, history and geography);

- subject matter which stimulates taking responsibility for the environment (environmental education);

To the "in which way question" the following answers are mentioned in Chapter 3:

- interactive learning; (emphasis on activity and the immediate return of information, development of open-ended investigative styles of working, learning problem solving strategies);

- continuity between pre-school and primary ways of teaching (traditional methods of the nursery school are very adequate, if reinforced by number, seriation and classification activities, oral expression exercises, activities with books, etc.);

- play (to be used as a general working method related to all parts of the curriculum, and as a special method to acquire the knowledge of rules and a creative-adaptive social behaviour);

- communication skills (teachers have to be a model for intense personal communication, eg. in clear sending, listening and resolving conflicts);

- environment (the environment can be used as an object to explore for all parts of the curriculum, to enhance the applicability of the children's learning results);

- teacher as assistant (helping the child to understand the task and to choose a particular strategy);

- active classroom organisation (children need time to check, to puzzle things out and they need to learn how to cope with activity based learning; teachers need to be highly skilled in classroom management);

- contract negotiation (between teacher and child about the task proposed, the objectives to be reached and the ways of achieving these objectives).

APPENDIX V

Summary of the research workshops

A M THIRION

At the beginning of the project the third all-European Conference of Directors of Educational Research Institutions (Neusiedl, 1983) drew up a list of research aimed at improving primary schools. This Conference encouraged a wide-ranging debate on the current state of research and those areas of educational and scientific policy at European level in this field which it felt should be treated as a priority in future.

During the project the research workshops were based on themes which were apparently more limited or more familiar such as:

- child development at primary school (Madrid, 1985);
- curriculum development and assessment: the renewal of mathematics teaching (Puidoux-Chexbres, 1984);
- computers and science (Edinburgh, 1984) and
- reading and writing skills in primary education (Tilburg, 1986).

However, it should be noted that these themes were discussed in connection with highly topical questions on research methods and the management of innovation. In particular, with themes of child development and the updating of programmes involved references to recent developments in research on the teaching and learning process in schools.

This decentering of research into the daily reality of schools could link up in a more pertinent and effective way the different levels of knowledge and decision-making which are essential for any real transformation of primary schools.

I. Research and the primary school: general aspects

During the last few years most member States have granted very little time and resources to research aimed at improving primary schools. The recent "rediscovery" of this level of education, encouraged by various international organisations, has induced the responsible administrations to reconsider structures, programmes, teaching methods and research strategies.

There is certainly a case for making better use of existing work. The utilisation of education research has become a field of investigation in itself, from which the primary school is fortunately not absent.

However, the priority, affirmed by both administrators and researchers, is to develop research directed towards decision-making, concentrating on comparative studies and constructive research projects.

In order to avoid the mistakes of the 1960s and 70s when the large sums of money allocated to innovations in schools produced very few results, it is not enough to manage innovation; it is also necessary to introduce innovations into the management processes of school systems, ie to break away from their bureaucratic and home spun functioning.

One valuable contribution of comparative research conducted by different member States would be to go beyond the stage of producing descriptive statistics in order to work out general indicators of teaching quality and effectiveness.

These large-scale projects would be complemented by more limited research used to study in greater depth the links between macro- and micro-analyses. In particular, these intensive studies could identify the characteristics of those schools which have been able to make successful innovations and the forms of co-operation between these establishments and other schools which have improved the quality of their teaching.

The decision of Project Group No 8 to concentrate on case studies in innovation ties in with this recommendation.

Comparison of examples of innovation at international, national and local levels could help to define the decision-making variables (BLOOM's alterable variables) according to the levels of system and the contexts envisaged.

Research directed towards identification and adoption of the decision-making variables affecting the quality of the learning process in schools should be well received by teachers and educational administrators, as it would answer questions on the organisation and management of education and on practical details which both education researchers and reformers have too often neglected.

This approach corresponds to the concern to seek differentiated solutions adapted to objectives, priority requirements, resources and local projects.

It has become apparent that reforms and innovations introduced in other places and other school systems should be a source of inspiration rather than imitation. It would be useful for these transpositions to be based on analysis of the processes which lead to the reutilisation of innovations in new contexts and to the active adoption of new practices by teachers. Quantitative analyses of these complex processes need to be complemented by qualitative analyses. This is the role of action research, which addresses the concerns of both researchers and teachers, and is proving to be an ideal vehicle for in-service teacher training.

1.2. Priority themes

The priority themes correspond to the principle concerns of Project Group No 8: the specific objectives of primary education and ways of assessing them, preparation and up-dating of programmes, and co-operation between the school, the family and the community. These themes must be studied using research methods which take into account the interactions between the various elements of the school system and of educational practice in a "broader context".

1.2.1. Aims and objectives of the primary school

The formulation of the educational goals underlying school programmes should not be limited to a prescriptive approach. The broad outlines could be based on an epistemological debate linking cultural anthropology and social philosophy. Iceland illustrates this possibility of basing programmes on a social theory of development. Such a conceptual framework helps to overcome the contradictions between immediate and future objectives.

Moreover, numerous contributions emphasised the increasingly heavy influence of budgetary restrictions, organisational constraints and the reduction of available time on learning in schools. Consequently, the role of research will not just be to develop more appropriate and more coherent programmes, but also to define the minimum conditions (the lower limits which must not be passed) which guarantee that they will be effectively put into practice. It is necessary to identify, and if possible to forestall, "short circuits" in the school system, which can have undesirable consequences.

Is there not a general tendency to underestimate the impact of "new social factors" (new technology, growing socialisation of the economy, means of communication) and world problems on the formulation of future individual and collective requirements, private and public responsibilities, and the rights of families and children? The participants agreed on the need to devote a large-scale study to the 5 to 8 year old group, the most sensitive to these new factors, and to the reactions of schools.

Reconsideration of specific features and the aims of primary schools is linked to an important debate. The generalised raising of the school leaving age makes it possible to formulate a new demand for equality in the primary school, no longer for equal access, which is now practically achieved, but for equality in the acquisition of basic skills. At the end of the 20th century it is not in the interest of any government to defend selection in the primary school. On the contrary, for ethical and economic reasons, it is vital to guarantee the effective quality of this teaching for all.

Evaluative research can be used to promote greater differentiation of learning processes (embracing a plurality of norms) or greater homogenisation of performances (aiming at more economy and less risk). The choices are politico-moral as much as technical, and should be debated democratically.

1.2.2. Research which can situate skills in their social context

Should the aim be to give children a better preparation for secondary education and consolidate the basis of the educational system, or does the achievement of new objectives necessitate, on the contrary, a broader social base?

Learning and development have not been dissociated. Some have situated them clearly in a perspective of on-going education and transformation of the relations between the childrens' different social environments. In this perspective, the key interdisciplinary concepts with general validity through the curriculum, "practical life skills", would not be practised in isolation from subjects and experiences meaningful to the children.

It is necessary to develop a better understanding of the interactions between, on the one hand, the contributions of research on child development, the specific features of the learning process in schools, the behavioural and physiological aspects of biological rhythms and the relationship to space (MONTAGNER) and, on the other hand, the organisational and structural aspects of the primary school.

Fervent pleas have been made for greater organisational flexibility and adaptability. This is not a matter for advocating variability as such, but of encouraging research to specify which organisational forms provide optimum conditions for learning, while taking into account individual and collective requirements. That is why, in a broader context, research should concentrate on vertical transitions between different levels in the school system (pre-school, primary, secondary) and horizontal transitions between the children's different educational environments (family, mass media, community) or between formal and informal learning processes.

There are many different ways for parents to participate in school activities and these should be studied in comparative research among member States. This also applies to the structures which enable parents and members of the community to play a role in the management of primary schools. It is becoming increasingly apparent that this social network is one of the factors which affects school success. This shows that the technology of education and the management of school systems cannot be developed in abstraction from cultural issues, which remain of vital importance.

1.2.3. Educational theory and research which can take differences into account

Curriculum development should be based on better knowledge of the teaching and learning processes in order to cope with individual differences, special needs (handicapped children, immigrants, etc.) and heterogeneous classes.

The major challenge for educational theory and research is to guarantee greater equality through and a greater diversity of individual and social gains (differentiated teaching). This aim ties in with the progressve philosophy affirmed by most primary school programmes but rarely achieved in classrooms, as shown by the recent work of Leicester University (M Galton).

It is vitally important that this type of research, which is producing better and better descriptions of the complex reality of teaching practices, should be able to contribute to the development of appropriate methods based on indicators of the quality of learning in schools. The more this research links together description and prescription the more it will be able to help fill in the gaps in initial and in-service teacher training.

Particular attention must be paid to training methods which attempt to integrate theory and practice more closely to make student teachers and teacher trainers see the classroom as an "educational laboratory", where the teaching methods in current use could be reconsidered. Lastly, there should be an overall study of the teacher training systems used by member States and an analysis of the results of various innovations introduced into programmes for in-service teacher training in schools.

In conclusion, new relations between research, management and innovation are emerging. Administrators and researchers have reached agreement on the importance of research directed towards decision making for effective management of systems and programmes, which should at the same time be active research conducted in close co-operation with schools.

In this context, the concern for "rational" management (for a satisfactory relationship between quality and available resources) cannot be dissociated from the conception of innovation as a social project, a system of interdependent relations, negotiations and meetings between the different partners concerned.

It is important to note that, according to some surveys (1), the main policy decisions concerning, firstly, the integration of all children by means of teaching methods which can take individual and cultural differences into account and, secondly, the social networks and common projects linking the child's different educational environments and the different levels of the school system are proving to be decisive factors determining the effectiveness of the schools system.

II. Contributions of the workshops

The proceedings of the workshops illustrated not so much specialised research as the "transfer" to the primary school context of the incontestable contributions of educational research during the last 20 years.

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(1) The results of surveys such as those conducted by the International Association for Educational Assessment (IAEA) or the latest Coleman report mainly concern secondary and higher education and do not lend themselves to hasty extrapolation to other levels and other contexts. However, they indirectly validate principles more specific to primary schools which could be verified experimentally at that level.

The contributions of the research workshops (well summarised in the general reports) will be analysed in relation to two complementary themes: curriculum development and assessment, on the one hand, and child development and new theories about the learning and teaching processes in schools on the other.

2.1. Curriculum development and assessment

In most European countries the most systematic work on curriculum development and assessment has been concentrated on mathematics teaching. This field illustrates, in the first place, the development of educational research methods.

2.1.1. Towards a systematic and regulatory approach to the curriculum

In the form of assessment advocated by M Scriven (1967) a curriculum can be assessed by the pupils' results, and teaching methods by comparison of those results. Such an approach gives priority to norm-referenced assessment and a three-fold correspondence between the objectives followed, the material taught and the assessment methods. But assessment of mathematics teaching showed, firstly, that the elements of the curriculum, were highly disparate and, secondly, that there were increasingly large variations in attainment.

In the 1970s curriculum assessment was extended and made more flexible through the use of "responsive" assessment (STAKE, 1975) in order to take more account of the real functioning of schools, parents' opinions and the relationship between the objectives laid down by the school system and that system's socio-economic context. The assessment of mathematics teaching in primary schools in French-speaking Switzerland provides a very good example of this development (CARDINET, 1984).

Cardinet argues that non-referenced assessment is unsatisfactory because it tends to classify and differentiate between pupils, whereas what is important is to assess learning levels. Schools need instruments which can enable them to verify that the learning objective has been achieved or to change teaching conditions in order to achieve it. The research showed the methodological difficulties and the harmful effects on teaching of assessment via individual objectives, whether related to operations, bodies of knowledge or general skills.

This critique leads to another strategy for assessing the curriculum as a whole. Reformulation of objectives must be accompanied by appropriate teaching methods and a different conception of the compelementarity between systematic and individual assessment.

The use of intermediate assessments, which require the range of new problems to be limited in advance in order to exclude unexpected difficulties, was abandoned in favour of constructive assessments by teachers, which encourage the feedback of information to pupils, understanding of their mistakes and new efforts leading to success.

In the Swiss project the progress of pupils was assessed with questions which made it possible to analyse the skills acquired in detail without allowing for comparisons between pupils and classes. The information can be used to provide a diagnostic interpretation and constructive suggestions for individual pupils and for a pupil and for the school system as a whole.

When seen from this point of view, curriculum assessment is above all a process of assisting decision-making rather then verifying scientific hypotheses which can be tranferred to other contexts.

This case study illustrates a strategy for interpreting results and their possible causes which broadens out in concrete circles to more and more general determining factors: "analysis of the pupils' various learning experiences to see where their difficulties are, examination of the learning strategies which may be the cause of these difficulties, review of the teaching methods used, study of the type and conditions of teacher training, analysis of the basic attitudes in society which explain these reactions and, finally, explanation of the didactic and philosophic choices which originally inspired the operations". (CARDINET, 1986). The facts observed are compared with the judgments of specialists, teachers and the different agencies working in the educational system in order to guide conclusions and decisions.

These are really the same variables concerning the background, implementation and results of a programme which specialists in assessment recommend should be taken into consideration in order to increase the probability of influencing decisions (GREANEY, 1984). Not all elements are necessarily defined at the beginning of a programme. It should be possible to carry out in-depth research into the problems brought to light during the assessment procedure.

Curriculum assessment should also incorporate into an explicit approach the numerous adjustments unofficially made to the real curriculum of a reform and provide from the beginning numerous adaptation mechanisms at all levels of responsibility. A regulatory approach of this type makes it possible to avoid the "shrinking" effects of innovations, the sudden changes and the effects of successive fashions which some countries have experienced with mathematics and may well do with computer studies.

2.1.2. Towards a non norm-referenced assessment of skills

It is expected of research that it should continue to clarify the objective and subjective aspects of assessment of attainment in schools.

a. by helping to define basic knowledge and skills so that teachers will have a better idea of what they may expect from their pupils and whether they are making excessive or insufficient demands on them;

b. by identifying the contextual variables, personal conceptions and subjective norms of teachers which exercise a strong influence on variations in the level of demands and the quality of teaching.

It is henceforth accepted that no definitive judgment can be made of syllabus content. In all fields (mathematics, science, reading and writing) the application of what has been learned in school to new problems becomes the principle criterion of success.

We have seen how this change of objectives is leading some researchers to give priority to constructive assessment in the school situation and to reject the notion of proficiency.

Others, on the contrary, place their hope in technical refinements of criterion-referenced assessment and applications of a theory, such as that of latent features, to set up banks of items and computerised adaptable tests.

Administrators seems to have accepted the notion of minimum skills better than reseachers and teachers. The observations made by researchers confirm the fear that only what is assessed will be taught in future (MADAUS and GREANEY, 1983). Teachers and others fear the standardisation and authoritarian assessment of skills.

The general trend in the workshops was to place the learning and teaching processes at the heart of the curriculum. In this perspective research into assessment must be able to give an account of a developing, interactive process and of differences within and between individuals. The key question is how to move on from an indicative assessment to decisions for action.

It seems that a teaching approach aimed at greater equality in the acquisition of basic skills must be adaptable to different individuals and different contexts, and such an approach therefore calls for a model capable of:

- assessing the effective quality of the teaching rather than the normative quality;
- identifying learning indicators in their contexts;
- establishing functional links between quality criteria and opportunities to learn instead of focusing on an illusory proficiency threshold.

Thus it seems that examples of innovation could provide favourable conditions for linking and combining different types of educational research directed towards conclusions which can be generally implemented, decisions and different types of assessment with different functions (predictive, constructive and certificatory).

P J Black's proposals (1984) for the development and assessment of a science syllabus summarise these new research priorities:

- "we need to start from careful study of children's present attainment;
- we need to clarify the relative importance and interactions of process and content;
- we need a comprehensive model of the curriculum in order to locate and inter-relate work on science, on technology and on other interdisciplinary areas;
- essential questions about content learning and about process learning have to be answered within some model of the learner;
- the future role of computers has to be planned by reference to a fundamental evaluation of the role of computer science in learning;
- a curriculum design of this kind can only be made effective if teachers can be helped to develop new skills and new confidence".

If the purpose of curriculum development research, according to CARDINET, is the direct management of innovation, real participation by teachers must be encouraged. It is not enough for them to answer questionnaires, administer tests to the pupils or attend retraining courses. Channels of communication and debate between researchers and teachers and between groups of teachers need to be developed.

The preparation and adaptation of textbooks and teaching materials may be a point of departure for analysis of actual practice, variations in the use of teaching resources and the persistence of "traditional" objectives. The process allows a critical reappraisal of initial and in-service training and new relationships between actual practice and desirable practice. This involves many problems which are familiar in the fields of action-research and adult education but are often badly dealt with in schools.

If, in P J Black's view, the necessary changes call for a fundamental review of the roles of the teacher in the classroom and a radically new approach to science teaching in schools, they cannot be considered a matter for teachers alone.

2.2. Child development and learning in school

The Madrid workshop attempted to bring together the social, psychological and educational aspects of child development. This synthetic and interactive approach makes it easier to go beyond disputes between school (behaviourist, constructivist, systemic, etc.) and establish a closer relationship between theoretical knowledge and educational practice (cf. the Final Report of Project Group No 8, Chapter 1.2., Thurler).

Child development research is no longer concentrated on stable stages and characteristics but on dynamic interaction between external and internal factors (COLL SALVADOR, 1985). The prevailing tendency is towards a critique of Piaget's theory, which insists on the logical structuring of thought and discourages intervention by the teacher. It is to be welcomed that researchers as a whole have recognised that however valuable psychological theories may be they cannot be translated directly into appropriate teaching methods.

This undogmatic approach was accompanied by considerable interest in cognitivist theories, with research into preconcepts (DELVAL, 1985), the motivation and control of action (KUHL, 1985) and perceptions and understanding of the learning process and its requirements (PRAMLING, 1985). Discussion of these points was heavily influenced by certain recent studies in social psychology which showed the importance of social interactions and socio-cognitive conflicts for development (PERRET-CLERMONT, 1979) and in the fields of sociology of the curriculum and assessment in schools (PERRENOUD, 1984).

The value of the Madrid workshop can be seen from the numerous suggestions for future research, particularly proposals for European co-operation on the study of social development in school (VAN LIESHOUT, 1985).

These new contributions show increasingly clearly that actual learning in school is multifaceted and complex. Consequently, recommendations as to teaching strategy are not so obvious.

The first conclusions to be drawn are warnings. When badly applied, cognitivist approaches may have paradoxical effects (inhibition, failure). Moreover, this new knowledge cannot be used for strategies appropriate to other conceptual frameworks (the remedial approach, setting). On the contrary, educational practice should be based on the heterogeneity within and between individuals (LUNZER, 1985). These are the same issues raised by differentiated teaching and by the psycho-social model of school assessment.

Large parts of this debate were repeated in the different workshops.

2.2.1. The psycho-social approach sheds new light on the specificity of school skills and consequently of teaching objectives and proficiency criteria.

Between the skills of specialists such as mathematicians or linguists, and between psychological theories and school skills many exchanges take place. This leads to confusion between the acquisition of knowledge and the development of intelligence, between knowledge of the structure of a discipline and the functional use of that discipline by the pupils.

Thus the preparation of textbooks and teaching aids for mathematics teaching and specialists and for formulating objectives which no longer set modern mathematics against traditional mathematics.

It was also noted, with astonishment, that in all European countries reading and writing, highly valued skills in both schools and society, are now hardly even taught after the first two years of primary school, but in fact, because of persistent and premature divisions within first language learning, some children now think that reading and writing are only important for school purposes. A psycho-social analysis of these processes would be likely to prevent functional illiteracy.

According to some participants at the reading workshop, this analysis also concerns teachers and researchers if they wish to go beyond disagreements over teaching methods which are linked to other symbolic and cultural conflicts.

In this perspective objectives and proficiency criteria depend on the way the child approaches school knowledge and at the same time on teachers' multifarious opinions and perceptions.

2.2.2. This leads to a different conception of the way to manage the learning process.

Some studies call for the development and establishment of teaching conditions which encourage the development of children's knowledge and meta-knowledge by making use of their own strategies. ANDERSSON (1984) and GIORDAN (1984), for example, propose a method of science teaching based on the analysis of children's perceptions or modes of reasoning ("alternative models"). DENH (1986) recommends that teaching of reading should be based on observation and guidance of the problem-solving processes adopted by children when they are confronted with texts. E A LUNZER notes that many of the false ideas held by children in the scientific field stem from deceptive analogies induced by the content and the context rather than by errors of logic. Consequently, good teaching consists of providing optimum contextual pointers and then gradually withdrawing them.

In the same context, researchers have shown considerable interest in the approach advocated by CASE (1985). This neo-Piagetian approach mainly consists in determining how the pupil tackles a problem and how his method differs from the one that is more appropriate. The following stage consists in pointing out the contradictions and inconsistencies. Then one gradually elicits the correct approach by providing the appropriate clues. In the attempt to go beyond the pupils' initial strategies, socio-cognitive conflicts may be of decisive importance.

Many avenues of research in cognitive psychology will soon be giving new currency to the old adage of active teaching methods: "Learn how to learn".

Microcomputers using the LOGO environment, inspired by constructivist theory, can help the learner to organise his intuitive knowledge, think about his own thought processes (metacognition) and work out procedures and basic qualitative concepts in order to build up mathematical and scientific knowledge. The context for these autonomous assessments and controls is the "combination of a cultural presence, a skill acquired and the possibility of personal identification" (PAPERT).

However, rigorous experimentation and longitudinal studies are still necessary not only in order to find out the potential of such a system but also to identify its limits (DE LANDSHEERE, 1986). For the participants at the computers and science workshop it was not a question of determining the respective merits of the LOGO system and other software and teaching aids but of knowing how to decide which to choose and how to use them according to educational objectives and in the interest of the child as a learner (ADAMS, 1984).

According to LF DE KLERK (1986), the (meta)cognitive approach transforms in particular the way teachers respond to individual differences among children being taught reading and writing, which are seen as interactive processes. It opens up new avenues of research based, firstly, on aptitude treatment interaction (ATI) and, secondly, on the mechanisms used by "skilled" readers. The strategies adopted by learners at various levels of development and proficiency need to be studied systematically and an attempt must be made to establish experimentally what types of teaching methods are likely to have influenced or to continue to influence the strategies observed.

2.2.3. For social psychology, neo-Piagetian approaches, including those which emphasise the importance of socio-cognitive conflicts in the development of knowledge, do not exhaust the complexity of the school learning situation. Acquisition by the pupil of school knowledge is necessarily accompanied by interiorisation of the rules and standards in force in the class, seen as an organisational unit of work on knowledge. The implicit "didactic contract" which links teacher and pupils in their mutual relations and their relationship to knowledge calls for further research (SCHUBAUER-LEONI, 1985).

According to Cardinet, this psycho-social conception of the school situation can account for phenomena which are difficult to explain by means of psychometric and systemic approaches (uneven levels of understanding among children at the level of attainment expected; different interpretations among teachers of syllabus requirements; disagreements over how school work should be assessed, etc.).

2.2.4. This line of research can also complement recent studies on the analysis of teaching methods.

It should be noted that, in the workshops, questions concerning syllabus content and structure were not considered in isolation from questions concerning the functioning of the class and teachers models for action and study.

I refer, in particular, to the English research which describes in great detail, and at some length, effective teaching strategies, management of time and the learning processes of pupils in primary school classes (GALTON, BENNETT, DESFORGES, 1983).

Statistical analyses of the (in)variability of teaching methods, its causes and its effects on the quality of learning could usefully be examined in conjunction with psycho-social studies which see the "didactic contract" as factor which creates meanings and patterns of behaviour in the school situation.

The teacher's methods are therefore to be seen as a system of standards and economic routines which enable him to manage, on a day to day basis, such a complex and demanding situation as a classroom. The steps to be taken to modify such a system must be carefully considered and controlled. The most effective are those where there is common ground between the researcher's hypotheses with regard to the possible decision-making variables (alterable variables) and the practical interests of the teacher, such as the situational variables which concern the organisation of the classroom and teaching aids.

It is important to note that, in spite of the diversity of conceptual frameworks and analytical methods, the same requirements emerge:

- the need for adequate explanation of and agreement (between teachers, pupils, parents, etc.) on the objectives and quality criteria of school work;
- work management which enables the teacher to take as much interest in knowledge acquired and learning processes as in the results expected;
- organisation which make two-way communication and formative interactions which include the pupils to regulate their own learning processes an integral part of the life of the class.

2.2.5. In order to provide all children with the most favourable conditions for their development, it is necessary, in the opinion of many workshop participants, to take steps to differentiate the teaching given which go beyond the classic procedures of individualisation. THURLER, for example (final report of Project Group No 8, Chapter 1.2.) proposes principles of differentiation which concern not only teaching content and objectives but also the methods used and the organisation of time. FIJALKOV (1986) raises questions about the organisational and structural changes (introduction of study cycles and educational teams, promoting and supporting more local initiatives, etc.) necessary for the development of teaching methods which not only respect differences but are also effective.

III. Looking ahead

Curriculum research seems to have recovered from two excesses, firstly the dominance of the subject-based approach (where the child is seen as a future specialist in mathematics, science, etc.) and secondly teaching based on objective (where the logic of the subject takes the place of psychological development).

In addition to this new balance between school learning and socio-cognitive development, a major trend is emerging: curriculum development and assessment are no longer dissociated from analysis of the learning and teaching processes or from the management of innovation.

This strategy ties in with a new paradigm for research on the effectiveness of teaching, based on an overview of results (products) as well as on processes and school contexts. This systemic and environmental approach (BRONFENBRENNER, DOYLE, 1986) makes the task of defining appropriate decision-making variables and research methods more complex.

The resulting complexity, however, is a protection against two potential dangers:

- the obligation to be accountable for the effectiveness of teaching does not lead to a "back to basics" movement, but rather to a broader conception of basic skills thanks to the findings of cognitive and social psychology;
- these skills cannot be dissociated from the learning and teaching processes in the school context. Research into the effectiveness of teaching conducted according to the process and products approach in mixed ability classes is likely to reinforce the "direct instruction" model, ie to translate research results injudiciously into teaching directives.

That is why it is urgent to pursue this research in innovation situations where a modification of various school constraints can transform teaching situations, the roles of the pupil and teacher and relations between the school and its environment.

Innovations increase the variations between organisations and patterns of behaviour. Among these forms of research will identify those forms of differentiation which are relevant to the effectiveness of the system and the quality of the learning taking place, together with prior and subsequent relations with other possible decision-making variables.

It is vitally important that the experience of the last twenty years in Europe is not repeated and that it will now prove possible to develop a critical mass of innovations in schools and research to accompany them which will affect the different aspects of the educational system in a simultaneous and co-ordinated way.

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- "The reading process" by Mrs Birgitta ALLARD and Mr Bo SUNBLAD, Stockholm Education Institute (DECS/Rech (86) 82).

APPENDIX VI

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by

Prof. Jean-Pierre OESTREICHER
Inspector General of Primary Education
LUXEMBOURG

NATIONAL REPORTS

National reports include in general a description of the educational system of the various countries and the aims of primary education, an analysis of problems and trends, and a presentation of projects or studies related to innovation in primary education.

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- Appendix: List of participants

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- Appendix II: List of participants

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  Ms Inger Andersson, Ms Winnie Grønsved,
  Mr Jean-Michael Sivirine, Ms Gertrud Schl-Bjurman,
  Prof. Henning Johannson
- Report on the school visits
- Working group reports
- Rapporteur's general summary: conclusions and recommendations
- Appendix: List of participants.

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- Local context of the project
- Guiding principles of the project
- Development of the project
- Progress of the project
- Assessment
- Transferability
- Conclusions

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Lecturer, Faculty of Science and Education,
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by Professor Paolo Orefice
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Université de l'Etat, Mons, Belgium

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by Angela Anning
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Head of Department for School Development
Reykjavik, Iceland

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22 pages

CONTACT

The contact school plan should allow those actively involved in the implementation of innovations in primary schools in Europe to take part directly and concretely in the project itself. The overall aims of the Contact School Plan have been defined in the following way:

- to establish links between schools trying to implement comparable types of innovation;
- to enable those responsible for the project to take into account the results of these experiments;
- to integrate in the project the reactions of teachers, educators and parents, to the ideas and proposals issued from the more theoretical and conceptual work of the project.

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by Mrs Monica Thurler
Secretariat of the Conference of Directors of Education,
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Director of Primary Education
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by Dr. Bruno WETTSTEIN
Schulamt, Vaduz, Liechtenstein

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11 pages

Evaluation visit to the contact school in Falkenberg (Sweden)
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Senior Lecturer in history,
Hertfordshire College of Higher Education
Aldenham, United Kingdom
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  DECS/Doc. (88) 1
  Strasbourg, 10 December 1985
  28 pages
  List of countries (24)
  Account of holidays in each country

- "Expectations at secondary level and trends in primary education in Europe"
  Report by Mr Jean Petite
  Secretary General of FIPESO
  7 rue de Villersexel

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- "The relationship between the primary school and underprivileged families"
  Report by
  The ATD Quart Monde International Movement
  Institut de recherche et de formation aux relations humaines
  107 avenue du Général-Leclerc
  95480 Pierrelaye, France

  Project No. 8 DECS/EGT (85) 21
  Strasbourg, 2 July 1985
  34 pages, Blue-Yellow brochure

- "Co-operation between school and family - prerequisites, implementations, problems"
  by Professor Dr. K Schleicher
  Hamburg University, Federal Republic of Germany

  Project No. 8 DECS/EGT (85) 58
  Strasbourg 29 August 1985
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- "Teaching innovations in French-speaking Belgium"
  Document prepared by
  La Commission de Rénovation de l'enseignement fondamental,
  Ministry of Education, Brussels

  Project No. 8 DECS/EGT (86) 62
  Strasbourg, 24 September 1986
  15 pages

- "The new technologies in the primary school"
  Contribution by the International Federation of Teachers Associations
  Jean-Bernard Gicquel - Max Ferrero
  at the Lyngby, Denmark
  10-14 March 1986

  Project No. 8 DECS/EGT (86) Misc 4
  Strasbourg 28 January 1986
  11 pages

- "Teacher effectiveness training"
  by Dook Kopmels, the Netherlands

  Project No. 8 DECS/EGT (86) 78
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  20 pages

- "School holidays in the CDCC member states 1988"
  List prepared by the
  Documentation Centre for Education in Europe

APPENDIX VII / ANNEXE VII

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APPENDIX VIII / ANNEXE VIII

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